A STUDY TO ASSESS THE KNOWLEDGE OF MOTHERS IN SAFETY OF UNDER FIVE CHILDREN REGARDING PREVENTION OF ACCIDENTS AT PSG HOSPITAL, COIMBATORE

By

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S.NO.	ABBREVIATIONS
1.	WHO: World Health Organization
2.	UNICEF:United Nations Children's Fund
3.	OPD: Out Patient Department
4.	KAP : Knowledge, Attitude, Practice
5.	STP : Structured Teaching Programme
6.	AV: Audio visual
7.	MCH: Maternal Child Health

ABSTRACT

A study to assess the knowledge of mothers in safety of under five children regarding prevention of accidents

"Prevention is better than cure." Children are the valuable assets of the country. Every child has a right to grow in a healthy environment. Home related injuries are a major cause of morbidity and mortality among under five children who spend most their time at home. Mothers are wholly and solely responsible for their children's care and stay with them round the clock. Accidents are the major cause of morbidity and mortality in children. Injuries cause almost 40 % deaths among 1-5 year old children and three times more deaths than the next leading cause like congenital anomalies. Accidents represent a major epidemic of non - communicable disease throughout the world.

Objectives and method of the study: A descriptive study was selected to assess the knowledge of mothers in safety of under five children regarding prevention of accidents. The study was conducted in Pediatric outpatient department in PSG Hospital, Coimbatore. Convenient sampling technique was used to identify 100 mothers having children under five years of age. The knowledge level of mothers were assessed by structured questionnaire.

Major findings and conclusion of the study: Nearly 51% of mothers has children below 1 year of age.Ninety threepercentage of mothers has no history of previous accidents to their children and have not managed any home accidents in the past.About burns in the present study even though (54%) of mothers had adequate knowledge regarding burn injuries 43% of mothers were unaware of the common causes of accidents, 73% had inadequate knowledge regarding placement of electrical appliances and outlets and 55% didn't knew the preventive measure against sunburns and regarding poisoning 61% of mothers had adequate knowledge regarding poisoning in under five children but about 92% mothers were not aware of the prevention of poisoning in children from toys, 60% had inadequate knowledge regarding first aid measure to be taken at event of poisoning.A significant association was found between age of mothers in the age group of 26-30 years who had more knowledge regarding prevention of accidents in under five children and in mothers living in nuclear type of family and was found that they have adequate knowledge regarding prevention of accidents. Mothers of under five children who got information regarding prevention of accidents from relatives also had adequate knowledge on prevention of accidents ($P< 0.05$). The study reveals that there is significant gap in women's knowledge regarding prevention of accidents and first aid management. There is a need for health education programs mainly for mothers and other caregivers.

Key words: mortality, morbidity, knowledge, accidents, underfive, prevention

CHAPTER-I

INTRODUCTION

1.1 Background of the study

The child is most precious possession of mankind, most loved and perfect in its innocence. Children to be cared and protected from environmental hazards. The suffering of children due to environmental hazards is inevitable. One of the global problems of environmental hazards is the unintentional injuries. Children are at windows of vulnerability for accidents. (Dr. Gro Harlen Brundtland 2003).

Today's children are tomorrow's citizens; child hood is very special and vulnerable period of life. A bright future for an individual for a family, for a society, for a country lies in providing a safe environment for children to grow and mature. Every parent think that they are good parents and take great care in protecting children from any harm or dangers yet there is one place where the child is more a risk than anywhere else, and that is their own home. No matter how careful parents are, there will be time when child is unsupervised. It only takes a split second for a child to swallow something and choke. (Janaki Patel, 2014) Most of the minor accidents are unavoidable but major and serious accidents can be prevented by adults caring for their children mothers play a major role in this process (Jayalaxmi .L.S 2004)

All children are at risk for injury because of their normal curiosity, impulsiveness and desire to master new skills and children imitate adult behavior from an early age (Walker, 2002). Life cannot be risk free but utilizing household safety measures can prevent most household accidents. Most of children feel safe and secure in their home, yet unfortunately at home is where many injuries and deaths occur (Alper, 2003). The main causes of accidents in the home are falls, fires and burns, drowning, suffocation, choking, poisoning and cuts and lacerations (Walker, 2002).

Accidents are one of the five leading causes of death in industrialized nations. Also accident is the leading cause of death and is a major reason for hospital admission and long term of disability in this age group from 3 to 5 years (Robinson, Roberton,

2003). Injuries arising from home accidents are increasing community health problems (Sattin et al., 1998). About 40%of deaths and 50%of non-fatal unintentional injuries occur in and around home (Naglaa Saad, 2010)

Accidental injuries are the leading causes of death in children under five of age. The developmental stage of the child partially determines the type of injuries that are most likely to occur at a specific age. The toddler with highest curiosity to explore, investigate and with the ability to run and walk are more prone to variety of injuries like burns, scalds. Drowning is a common, preventable problem especially in childhood where it is the second most common cause of death by accidents with 0-3 years old and comprising 22 per cent of drowning. Accidental poisoning was commonly involving 50-90 per cent of children below 5 years of age. It is a global problem. Children between 1-3 years age were the most vulnerable group. During toddler period, exploratory nature aided by their newly acquired hand skills and mobility. Negligence and ignorance of parents and caretakers in making environment of child for poisoning. In small house with limited space, the household's chemicals, disinfectants and kerosene are most likely ingested by the children accidentally. Accidental aspiration of food objects such as nuts and seeds are common in young children may result death, Inedible objects such as balloon, coins, pills, safety pins, marbles and baby powder may also be fatally aspirated.(Janaki Patel, 2014)

World Health Organization defines accident as an unexpected and an unintended event causing physical and mental injuries. Children being less aware of danger are one of the most vulnerable groups, which can be explicated with the ongoing development of neuromotor, cognitive, physical, socio-psychological and sensory skills. The occurrence of injury is unintended. About 90% of all accidents are preventable by safety measures. WHO report says that in the age group of 1-4 years, the second year is the period when the young child runs the highest risk of dying. In the developing countries, death in the second year of life commonly accounts for 50% of all deaths between 1-4 years of age. (WHO, 2011)

UNICEF report says that globally average of under five mortality in 2002 was 82 per 1000 live births in the developing world it was 90 per 1000 live births. Accidents are

more common in aggressive, stubborn, poor concentrated and unsupervised children. Most injuries in children are predictable, avoidable and preventable. Injury prevention is an unavoidable part of every child care program and an important responsibility of both parents and caregivers. (UNICEF, 2002).

1.2 Need for the study

Mother is an important care provider and she is strongly responsible to improve the safety of the children. Children are the most important and vulnerable group of our population. Childhood accident is a sudden cause of death or a/ emergency in children. Accidents are usually related to the growth and development of children. The lack of knowledge and ignorance of child care may add to the predisposing factors for the childhood accidents. Among children under-five are always at the door step. It is a challenging time for parents and child to know each other. (Kole, 2014)

Injuries do not always indicate neglect. It is a difficult task to watch children carefully without overprotecting or unnecessarily confining them. Small falls help children learn the dangers of highest; touching a hot object once can emphasize to the child the pain of burn. Parents need to remember that infants and young children cannot anticipate danger or understand where it is or is not present. It must be remembered that child need to be physically removed from the situation. Unintentional injuries rank as the number- one cause of death and a leading cause of hospitalization for the infants and toddlers. The importance of the mothers role in childhood accident prevention has long been recognized, although many studies suggests that many mothers are unsure of that role, feel inadequately prepared for it and recognize significant constraints on their accident prevention activity. The Health of the nation suggested that specific accident prevention activities should be undertaken by the mothers. (Sandhya Shrestha, 2014)

Unintentional injuries ranks fourth among the leading cause of death of children in India. In 2005, 281 toddlers were killed due to unintentional injuries. In 2000, there were 120,000 deaths due to accidents. In 2004, there were 3,308 unintentional drowning cases in the United States, an average of nine children per day. Around 19% of drowning death involving in children occurs in public pools with certified life guard present .From 2005-2007 there were an average of 283 fatal drowning cases among toddlers. Among

them 65% were boys and 46% were girls. Burns are caused by a number of agent factors, such as chemicals, hot liquids, fumes, electrical items, leakage of kerosene stoves, practice of low-level cooking, unsafe crackers used during festivals without supervision. About 30% of burns occur in children between the ages of 1-3 years. Thermal injuries are the third leading cause of accidental deaths in children and are the second leading cause of injuries in the age-group between 1 -3 years. Nearly 80% of the burns occur at home. Major burn injuries occur in toddlers. The problems like contracture, deformities and disfigurements are some of the complications of burn injuries. During 2001 there were 32,509 toddlers died in India due to burn injuries. (World Health Organization, 2007)

Today's modern risk results from the unsafe use of dangerous chemicals. Unsafe chemicals in toys and household products may also harm children .There are different types of poisoning. All are accidental and some do not have an immediate effect on a child. Poisoning is more common among younger age group. Poisoning is more frequent in toddler boys than girls because boys are more active and venturesome than girls. (Devulkar, 2014).

Prevention and control of home accidents among children has been recently a target and very important area for health promotion (Abd El Wahed, et al., 2000). First aid is the provision of initial care for an illness or injury, usually by a non-expert but trained person, until medical treatment can be accessed. Provision of immediate first aid to patients who require emergency care can make a big difference to the outcome (Tomruk et al, 2007). Parents' knowledge and practice about first aid is especially important in injury care for children, as many adverse consequences of injuries can be averted if parents know what actions to take. It is a true saying that education improves people's ways of life and gives way for enlightenments, (National safe kid's campaign, 2000). Ignorance and negligence of the mother are the fundamental causes of accidents. So it is important to improve the mother knowledge, attitude and practice to prevent accidents. Education is an important nursing role and it is the primary intervention strategy chosen to address and prevent childhood home injuries. (Ali, 2010)

Nowadays most of the mothers are Jobholders which increases the risk of household injuries. Another reason is that children are brought up by care takers till they are going to start schooling. So the researcher feels it is important to know the knowledge of mothers regarding the prevention of accidents to prevent occurrence & to improve quality of life so that the children will be protected and prevented from accidents and their safety will be ensured.

1.3 Statement of the problem:

A study to assess the knowledge of mothers in safety of under five children regarding prevention of accidents

1.4 Objectives:

1.4.1 To assess the knowledge of mothers regarding the prevention of accidents.

1.4.2 To find the association between selected demographic variables with knowledge.

1.5 Assumption:

1.5.1 Mothers may have some knowledge regarding prevention of accidents

1.5.2 Children under five years of age are more prone for accidents.

1.5.3 Mothers are the primary care givers who spend more time with the children.

1.6 Hypothesis:

There will be significant association between knowledge and selected demographic variables.

1.7 Delimitations

The study is delimited to:

- Mothers who are having children below 5 years of age.
- Mothers who are coming to the Pediatric OPD
- Mothers who are willing to participate in the study.

1.8 Operational definitions:

1.8.1 Knowledge: It is the level of response of the mother to respond correctly to the questions regarding prevention of accidents which is classified as adequate, moderately adequate and inadequate knowledge.

1.8.2 Prevention: It refers to the safety measures taken to prevent accidents in under five children thereby reducing mortality.

1.8.3 Accidents: Refers to poisoning, and burns that cause physical disturbances among under five children.

1.8.4 Under five: Refers to the children who are in the age of 0-5 years.

1.9 Projected outcome

The knowledge awareness regarding prevention of accidents in under five children will be created by giving pamphlet among mothers having under five children.

1.10 Conceptual framework

The conceptual framework is a theoretical approach to the study of problems that are scientifically based and emphasize the selection, arrangements and classification of its concepts.

The conceptual framework for this study was derived from Nola. J. Pender's health promotion model (1996) which aims to increase an individual health promotion activity. The health promotion model notes that each person has unique personal characteristics and experience that affect subsequent actions. The set of variables for behavioral specific knowledge and affect have important motivational significance. These variables can be modified through nursing actions. Health promoting behaviors should result in improved health, enhanced functional ability and better quality of life at all stages of development. The final behavioral demand is also influenced by the immediate competing demand and preferences, which can derail an intended health promoting actions

Major concepts:

Health promotion: It is defined as the behavior motivated by the desire to increase wellbeing and actualize human health potential. It is an approach to wellness.

Behavior – specific cognitions and affect: The perceived benefits of action , perceived barrier to action, perceived self –efficacy, activity related affect, interpersonal influences and situational influences.

Behavioral outcomes: Commitment to a plan of action, immediate competing demands and preferences and health promoting behavior. The model directs nurses to systematically assess clients for their:

Personal factors: Categorized as biological, psychological and socio cultural. These factors are predictive of a given behavior and are shaped by the nature of the target being considered.

Perceived self-efficacy: Judgment of personal capability to organize and execute a health promoting behavior. In this study it indicates the willingness of mothers to adapt preventive measures against accidents among under five children.

Perceived barrier to action: Beliefs about the unavailability, inconvenience, expense, difficulty or time consuming nature of a health. In the present study lack of knowledge of mothers about preventing accidents among under five children are the barriers of health promoting behavior.

Perceived benefits of action/behavior: Perceived benefits of action is the belief about the positive or reinforcing consequences of a health promoting barrier .In the present study the benefits of action is improvement of knowledge of mothers in preventing accidents in under five children. Thereby providing a safe environment for them and reducing disabilities and death.

Perceived control of action: It consists of those factors which controls or limits the action. In this study the perceived control of actions are lack of knowledge, fear and anxiety.

Commitment to a plan of action: Identification of planned strategy that leads to implementation of health promoting behavior. In this study application of knowledge from health information provided is the planned strategy to implement the outcome.

Health promoting behavior: A Health promoting behavior is the end point or action outcome directed towards attaining positive health outcome such as optimal wellbeing, personal fulfillment and productive living. In the present study knowledge attainment of mothers of under five children is the outcome.

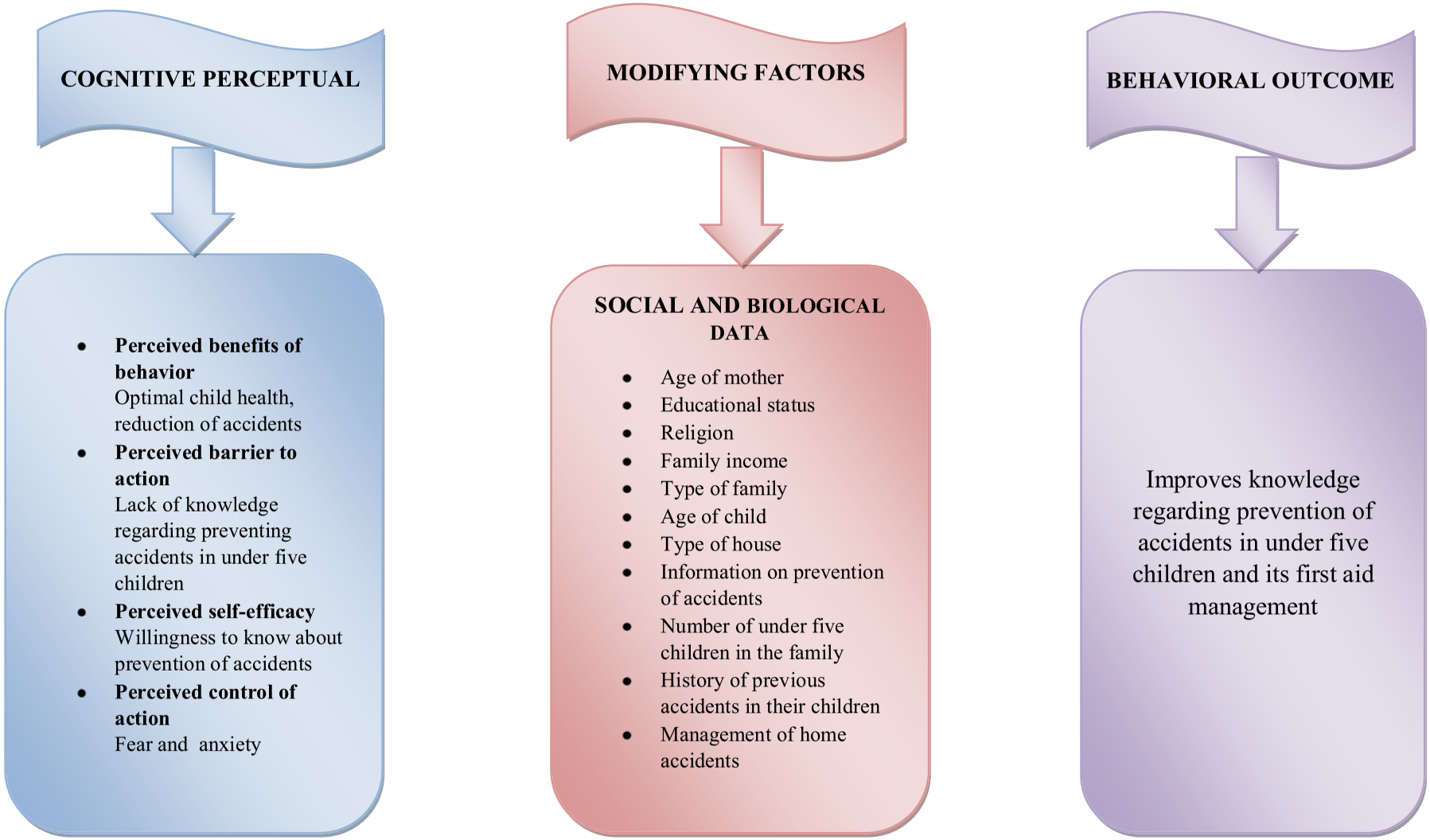

Figure 1.1 Modified Pender's health promotion model by Nola. J .Pender

CHAPTER II

REVIEW OF LITERATURE

An extensive review of literature relevant to research was done to gain insight into the study. Review of literature is an essential step in the development of a research. It enables the researcher to develop a plan for the methodology. Further it provides the basis for further investigations, justifies the need for implications, throws light on the feasibility of the study and indicates constraints of data collection. The review of literature has been organized under the following subheadings:

2.1 Literature related to prevalence of accidents among under five children

2.2 Literature related to pattern of accidents among under five children

2.3 Literature related to knowledge of mother about accidents

2.4 Literature related to prevention of accidents among under five children

2.1 Literature related to prevalence of accidents among under five children

A cross-sectional study was conducted in Hamadan County, the west of Iran, enrolling 580 mothers with at least one under five-year child. The data collection instrument was a questionnaire including 85 questions regarding demographic characteristics, knowledge, practices, and history of injury occurrence among the children.Data had been collected through interview with mothers, by trained interviewers. Almost 22.59% of mothers reported at least one injury in their under five-year children. Of 131 injuries occurred, 85 cases were mild, 23 cases were moderate, and 23 cases were severe. About 52.67% of injuries occurred in boys, 37.41% in less than one-year children, 73.28% at home, and 61.07% when the children were playing game. Fall (24.28%), burn (20.61%) and poisoning (14.50%) were the common causes of injuries. There was a positive correlation between mothers' practices and knowledge, perceived benefits, cues to action and self-efficacy and a negative correlation between mothers' practice and perceived susceptibility, severity, and barriers. **(Jalal poorolajal, Parvin Cheraghi, Seyed Mohammad Mahdi Hazavehei, Forouzan Rezapur-Shahkolai, 2013)**

A cross-sectional study was conducted to determine the prevalence of unintentional injuries among under-five children attending the anganwadis in Udupi Taluk. Convenient sampling method was adopted and a total of 95 mothers of children under-five were interviewed by using interviewer administered semi-structured questionnaire. The results revealed that the prevalence of unintentional injury among under-five children attending the anganwadis was 46.3% and the commonest causes of the injuries were due to falls followed by burns and animal bites. Majority of the injuries were among boys (72.7%). Nearly half of the respondents (50.5%) were not aware how to provide first aid with respect to unintentional injury among children. The prevalence of unintentional injuries among under-five children was high and majority of the mothers were practicing some form of preventive measures. The findings recommend intensive health education of health awareness campaigns. **(Prafulla Shriyan, Vidya Prabhu, K Seema Aithal, Uday N Yadav, Miti J Orgochukwu2012)**

A cross-sectional descriptive study was conducted to find the incidence and types of home injuries affecting rural children aged up to12 years and to assess the knowledge, attitude and practice of mother about first aid in Damares village, El-Minia, Egypt .Structured interview sheet was developed containing data about socio-demographic characteristics and the mother's knowledge, attitude and practice (KAP) towards home injuries. It was found that 39.8% of the children suffered from home injuries at the previous 8 weeks. About 30% of the injured children were aged less than 3years and over 63% of them were males. The study revealed that 22.3% of mothers did not know the term of first aid, most of them were illiterate. The main source of the mothers' knowledge was from television (38.5%). The practices of mothers towards the children home injuries were increased better with increasing educational level. The mother’s level of education, source of knowledge about first aid, older age and occupation were significant predictors of KAP score among the studied mothers ($P<0.001$). Findings of the study was that the well-educated and the older mothers have better knowledge, attitude and practice regarding home injuries than other mothers. **(Emad Girgis Kamel, Shimaa Anwer Emam, Eman Sameh Mohammed, 2014)**

A cross sectional study was undertaken in Surat to assess the relationship of domestic environmental factors over the health of under five children. The study areas were selected by the technique of two-stage sampling. Thus, an urban slum and a middle-income group area were selected. The information was collected using interview technique by house to house survey. A sample size of 600 families was estimated. Results showed that nearly two third of the boys (64.1 %) from middle income group area were at risk of electric appliances within reach in their home as compared to 23.9 % in urban slum area. In the same way girls (54.7 %) of the middle group area were higher at risk of exposure to electric appliances as they were within reach in comparison to 17.6 % girls of the urban slum area. Three fifth boys (61.0 %) were found at risk of household chemical being within reach in urban slum area as compared to about one fourth boys (26.6 %) were at same risk in middle income group. Similarly more girls (63.5 %) from the urban slum area were at risk as household chemical was within their reach in comparison to girls (31.1 %) of the middle income group area. **(V Chaudhari, R Srivastava, M Moitra, V Desai, 2008)**

A prospective study was conducted at North Staffordshire Hospital center among children under five year about accidental injury who presented at the surgery or the accident and emergency department. Details were obtained from answers to a questionnaire sent to parents within two weeks of a child's accident. Among 511 children under five years of age, 100 children (57 boys, 43 girls) had 120 accidents. The maximum number of accidents occurred in the second year of life. Eighty six children had only one accident and four children required hospital admission. The most common cause of injury was a fall (56%). The majority of accidents happened at home (79%). Children who had accidents had younger mothers and were more likely to have a sibling who had had an accident in the previous year. **(Y. H Carter, P W Jones, 1993)**

A cross sectional study was undertaken in rural Pondicherry to find the prevalence of injuries among children under fourteen years. Mothers were interviewed and obtained information on injuries in last 1 year and its sources of treatments. Overall prevalence injuries among below 14 years was 23% in the last 1 year. The prevalence of injuries among infants, 1-4 years children and 5-14 years children was 32 (15.2%), 110 (24.5%)

and 274 (23.7%) respectively. Prevalence of injury was significantly higher among male children (P< 0.001). All injuries were accidental and 68.2% injuries occurred in home environment followed by that in school. The recommends that there is a need for community based health education intervention for mothers, caregivers, school teacher village level health workers. **(Mahalakshmy T, Dongre AR, Kalaiselvan G, 2011)**

A cross-sectional epidemiological study was conducted in Malatya city to determine the frequency of injury-producing accidents and related factors among 704 children aged under five year. The frequency of injury-producing accidents was determined as 12.6%. The majority of the accidents occurred in the house, and 65.3% of them were due to falls; in 65.1%, accidents occurred in the presence of the mother. The frequency of the accidents was highest for the 4-5 age group (14.1%) and lowest among those less than 1 year. It was found that maternal age less than 30 and children in the age of 4-5 years primarily affected the chances of having an accident. The average number of risks defined by the mothers was found to be associated with the age of the child, educational background of the mother, her occupation, type of family, and monthly family income. No relation was determined between the accident risk awareness and accident frequency. In conclusion, the injury-producing accident frequency among children aged under five in central Malatya was found to be high. The study recommends training programs to reduce the home-based risks.**(Atak N, Karaoglu L, Korkmaz Y, Usubutun S. 2010)**

2.2 Literature related to pattern of accidents among under five children

A cross-sectional analysis was undertaken in and out patient service settings of Jimma University specialized hospital to assess the pattern of childhood accidents among children under 15 years of age. The information was collected using structured and pre-tested questionnaire, on factors related to socio-demographic and economic variables. Among 452 cases of accidents 79 (17.5%), 271 (60.0%) and 102(22.6%) of the subjects were within age group of 0-4, 5-9, and 10-14 years, respectively. The predominant observed accidents among all age groups were laceration wounds, 304 (67.3%) and soft tissues contusions, 111 (24.6%). Traumatic injury other than car accident accounted for 82.38%, burn 15%, poisoning 1.3% and car accident 1.3%. Burn was common among

children 5 - 9 years. There was statistically significant association between age and type of accident and nature of injury (P<0.05). Two hundred eight one of the accident occurred at home (62.2%), followed by school (14.8%), high way (16.8%) and in sport fields (6.2%). One hundred twenty four (27.4%), 76(16.8%) and 252(55.8%) ended with complete recovery, recovery with major and minor sequelae respectively. The study, has tried to indicate that accidents are becoming a public health problem which needs designing a national strategy on child accident prevention, control and management. **(Mariam A, Sadik M, Gutema J. 2006)**

A retrospective study was performed with an anonymous questionnaire administered to the mothers of 2208 children aged between 3 and 11 years, randomly selected from Catania, Sicily. (17.29%) children suffered at least one accident at home. Predominating injuries were falls (71.86%) followed by cutting or stab-wounds (13.57%). The more frequent lesions were contusions (42.13%), wounds (29.95%) and fractures (14.22%). Almost the half of children victims of injuries required hospital care (44.72%). The majority of domestic accidents occurred in the bathroom (17.10%), in the kitchen (15.10%) and in the bedroom (10.55%). Fractures and wounds were more frequent among children aged 6-11 and 3-5 years, respectively. **(Coniglio M. et. al, 2005)**

A descriptive study was conducted in Pakistan to assess the pattern and distribution of unintentional injuries according to gender, socio-economic status and disability caused among3223 children aged under 5 years. The overall incidence of unintentional injuries was 47.8 % among boys and 45% in girls under 5 years of age respectively. Falls were the most common type of injury (60%) followed by cuts/bruises (21%) and burns (14%). The majority of injuries occur at home (85%), with just 10% due to road traffic. Road traffic injuries and injuries to the female child were more likely to result in disability. The study result shows that there is high burden of unintentional injuries and disability among children under five years .**(Fatmi Z, Kazi A, Hadden WC, Bhutta Z A, Razzak J A, Pappas G., 2009)**

2.3Literature related to knowledge of mothers regarding prevention of accidents.

A cross-sectional study was conducted among 230 rural mothers of west Tripura district to assess knowledge of mothers regarding domestic childhood injuries and safety measures adopted. A systematic random sampling technique was used to select individual participant and information collected using pre-tested semi-structured interview schedule. The result of the study was that the majority (71.3%) of respondents were in the age group 20-25 years, housewives (79.56%), nuclear families (67.7%), up to primary education (60.9%) and family income of less than Rs 5000/- per month (53.5%). Only 3.9% met minor domestic injuries. Out of which 6(66.7%) of respondents children 3 were treated at home, remaining at hospital and all of them recovered. No significant relationship between age of mother and level of knowledge (P= 1.094). There was significant relation (P= 0.016) between sex of the child and level of knowledge of mothers. The findings of the study revealed that sex of the children was important factor for knowledge level of mothers. **(Manjulika Debnath, Taranga Reang, 2014)**

A non-experimental descriptive study was conducted in selected rural area of Ambala, Haryana to assess the knowledge of parents regarding prevention of home accidents among under five children and to determine the association of the knowledge with selected characteristics. The data were collected from 60 parents of under five children by structured knowledge questionnaire. There were 30 knowledge items. Major findings of the study revealed that most of the parents (41.7%) were in the age group of 23–27 years. Majority of the subjects (80%) were females and (38.3%) had done senior secondary. Majority of the subjects (66.7%) were home makers. Majority of subjects (65%) belonged to the joint family. Seven sample (11.7%) were having very good knowledge, 35 subjects (58.3%) were having good knowledge and 18 subjects (30%) were having average level of knowledge regarding prevention of home accidents and 62.5% had knowledge on first aid management of home accidents. **(Kuldeep Kaur, Simranjit Kaur, Herbaksh Kaur, 2014)**

A pre experimental one group pretest post test design study was conducted in Belgaum to assess the knowledge of mothers of toddlers regarding prevention of house hold injuries and to evaluate the effectiveness of structured teaching programme on

knowledge regarding prevention of house hold injuries. Thirty mothers were selected using purposive sampling technique. The tool used for data collection was structured knowledge questionnaire with 30 items. Findings of the study was that in the pretest 8(27%) had poor knowledge where as in posttest none of the samples had poor knowledge. In the pretest 16(53%) had average knowledge and in the post test 77% had average knowledge. In the pretest 6(20%) had good knowledge and in the post test 7 (23%) had good knowledge. The mean post test score (26) was higher than the mean pretest knowledge score (10.16) which proved that STP was effective method in improving the knowledge of mothers. The paired t' test calculated value (49.4) was significant (P< 0.05 level). Based on the finding of the study, the overall pretest knowledge on prevention of household injuries among mothers of toddlers was average which suggested there is need for STP for mothers of toddlers regarding prevention of household injuries among toddlers. Post test result shown the significant improvement in the level of knowledge regarding prevention of household injuries among toddlers .It can be concluded that STP was an effective method of teaching the mothers of toddlers to improve the knowledge regarding prevention of household injury**. (Kole, Devulkar, 2014)**

A study was conducted in karkalla to assess the knowledge of mothers regarding prevention of accidents using descriptive research design with Simple random sampling technique method .A sample of 50 mothers were selected for the study. Demographic Performa and questionnaire were used to collect data from the sample and the data was analyzed by descriptive statistics. The result of the study showed that 6% mothers with poor knowledge, 78% with average knowledge and 16% with good knowledge. **(Suchithra B S, 2015)**

A non-experimental descriptive survey design was conducted in Mangalore to assess the knowledge of mothers regarding safety needs of children with a view to develop an information booklet. Children aged 0 to 6 years were selected by using non probability purposive sampling technique. The data collected using demographic proforma and a structured knowledge questionnaire on safety needs of children from a selected rural community area. The study revealed that 9% of mothers had average

knowledge and 91% had poor knowledge on safety needs of children. The mean percentage of knowledge on safety needs of children was 31% with a standard deviation of 3.18. There was a significant association found between the knowledge score and the selected demographic variables. Based on the study findings the information booklet was provided**. (Priya Aranha. et. al, 2013)**

A descriptive study was carried out in Elwan and El-Masra villages in Egypt to assess mother's knowledge and practice toward home accidents among 200 children under six year. The main results obtained from the study was that most of mothers were in the age group 25 to less than 35 years and nearly all home had at least two potential environmental hazards. The present study revealed that the incidence of home accidents was (50.3%), wounds were the commonest types of home accidents (37.4%) and shows highly statistical difference between mother's knowledge and age and between mother's knowledge and education, about three-quarters (74.5%) of mothers had incomplete knowledge regarding home accidents among their children**.(Naglaa Saad, Farag Mohammed Moftah, Hoda Diab Fahmy Ibrahim, Rabaa Hamed Hassanen, 2010)**

A cross-sectional study was conducted in Baghdad city to assess the level of knowledge of women with respect to children's domestic accidents. Among mothers attending primary health center by random sampling method. The results revealed that only 9.2% of the mothers acquired a good level of knowledge in prevention of injuries and more than 90% were found to have poor knowledge. Older mothers were statistically found to have a better level of knowledge than younger mothers. Higher educated mothers were statistically associated with a lower level of knowledge in accident prevention. Mothers with more children and those whose children had previously been involved in an accident were found to have a better level of knowledge. It can be concluded from this study that women in Baghdad are poorly educated about how to protect their children against domestic accidents. **(Riyadh K. Lafta, Sahar A. Al-Shatari, Seba Abass, 2013)**

A study was conducted in kindergarten located in Hungary to examine the first aid and accident prevention knowledge and attitudes of 307 parents of children aged between 3-7 years of age. A self-fill-in questionnaire applying standardized items was

used to collect data. Out of them, 234 persons filled out the questionnaire correctly. Three quarters of the children have suffered at least one accident in their life (74.3%). A total number of 174 parents attended first aid courses earlier (74.4%). Based on the results, there is a need for teaching first aid (70.5%) and accident prevention (89.7%) to parents. Between the subjective judgment of the financial status and the correct answers a significant correlation was found (P =0.03). The previously accomplished first aid training (P< 0.05) and the educational attainment had a positive impact regarding the correct answers. The level of first aid knowledge among the parents of children was lower than expected**. (Balint Banfai, Krisztina Deutsch, Emese Pek, Balazs Radnai, Jozsef Betlehem, 2015)**

2.4 Literature related to prevention of accidents among under five children

A quasi experimental study was conducted in Cairo University Specialized Pediatric Hospital and Benha University Hospital from the pediatric outpatient departments to evaluate the effect of supportive strategies regarding accident prevention on mothers' knowledge and practice of their children under five years old. A convenient sample of 100 mothers was included in this study. Tools of data collection were socio-demographic data sheet for mothers and their children, history of accidents, questionnaire sheet regarding to mothers' knowledge about accidents as well as mothers' reported practices regarding accidents. The study's results revealed that more than half of the children (55%) were male. There were significant differences between pre and post supportive strategy in mothers knowledge and reported practices. Mothers knowledge and practices in prevention of falling and drowning, electrical shock, burn, and suffocation, was affected by their age (P< 0.001) and education (P <0. 05) respectively. The study recommended that supportive strategies for accidents prevention should be applied in all pediatric care settings. Health promotion programs should be directed to prevent and control of accidents among children. **(Afkar Ragab Mohammed, Nesreen Sayed Mohammed, 2013)**

An evaluative research approach with pre-experimental design was used to assess the effectiveness of structure teaching programme on knowledge regarding prevention of childhood accidents among mothers of under five children at Piparia, Vadodara by non -

probability convenient sampling among 50 mothers. The tool consist of 2 sections like demographic profile and knowledge component of childhood accident consisting of 30 items. The results indicate that the post-test knowledge score was in the range of (20-29) which was higher than the pre-test knowledge score range (11-17). The mean post-test knowledge score (24.14) also was higher than the mean pre-test knowledge score (13.84).The comparison of pre-test and post-test knowledge score showed that there was a significant gain in knowledge scores of mothers after STP ($P<0.01$). There was no significant association between the posttest knowledge and socio demographic variables. The study findings revealed that structured teaching programme was highly effective in improving knowledge of mothers regarding childhood accidents. **(Janki Patel, Arpan Pandya, Ravindra HN, 2013)**

A quasi experimental study was conducted to assess the effectiveness of structured teaching programme on knowledge and practice regarding, prevention of childhood accidents among the mothers of under five children in selected village of Moga, Punjab. One group pre test posttest design was adopted. Sixty mothers of under five children were selected by using simple random sampling technique (Lottery method). Pretest was conducted using structured knowledge questionnaire to assess knowledge and checklist to assess the practice, following which structured teaching was administered with the help of AV aids. Three days after structured teaching post test was conducted with the same tools. The findings of the study revealed that mean posttest knowledge score (18.25) and practice score (16.63) were significantly higher than pretest knowledge score (14.53) and practice score (13.35) respectively. The difference between the mean pretest and posttest knowledge and practice score was highly significant ($P<0.001$). There was a highly positive co - relation between pre and posttest knowledge and practice score. There was significant effect on pretest and posttest knowledge and practice score in majority of variables except age of mother, type of family and source of information. The study concluded that structured teaching programme was effective in increasing the knowledge and practice of mothers regarding prevention of childhood accidents. **(Kaur Jagjeet, 2013)**

CHAPTER III

MATERIALS AND METHOD

Designing a research involves the development of plan of strategy that will guide the collection and analysis of data. The present study was designed to assess the knowledge of mothers in safety of under five children regarding prevention of accidents .The study was conducted by adopting following steps of research process as research design, setting, population and sampling, sample size determination, criteria for selection of samples, instruments and tools for measuring variables, techniques of data collection, and method of data analysis and report of pilot study.

3.1 Research approach:

The research approach used for the study was quantitative evaluative approach

Research design:

Descriptive survey design was used in this study. This design was used to obtain information from mothers of under five children regarding prevention of accidents. The greatest advantage of survey research is its flexibility and broadness of scope (Polit, 2001).

3.2 Variables of the study

3.2.1 Dependent variables: The dependent variables of the study is the knowledge level of mothers regarding prevention of accidents in under five children.

3.3 Settings of the study:

Study was conducted in pediatric OPD of PSG Hospitals, Coimbatore. This is a multispecialty hospital and research centre with 1400 beds, which caters multilingual patient from various parts of the country. This is the first teaching hospital in Tamil Nadu and the third teaching hospital in India to get certified by National Accredited Board for Hospital and health care providers (NABH) .The pediatric OPD of PSG hospital has an outpatient facility were around 60-80 patients visit pediatric OPD every day.

3.4 Population and sampling:

The pediatric population visiting the outpatient department in PSG Hospital is around 25000 per year and 1800-2000 per month. The number of children attending OPD daily comprises of 60-80 children. The children attending immunization services ranges from 50-60 per day.

3.4.1 Sampling technique and Sample size:

The sampling technique used for the study was convenient sampling. Mothers who have children below 5 years and who met the inclusion criteria were selected as samples for the study.

Calculation of sample size: The samples were calculated using the following formula

$n = \frac{4pq}{d^2}$

Prevalence (p) =50%

q= 100-p

=50

d = relative precision

d is 20% of prevalence

= 20/100×50

d = 10

n = (4×50×50)/ (10×10)

= 100

3.4.2 Sample selection criteria:

Inclusion criteria:

- Mothers willing to participate in the study
- Mothers having children under five years of age.

Exclusion criteria:

- Mothers whose child is critically ill
- Mothers who do not know Tamil and English

3.5 Instruments and tool for data collection

The tool used for data collection was a self-modified questionnaire consisting of 2 sections

Section A: Demographic variables

The demographic variables were developed with the guidance of research guide and literature review. The demographic variables included in this section are age of mother, educational status of the mother, age of the child, religion, family income, number of under five children, type of house, history of previous accidents, management of home accidents, and information about prevention of accident. (Annexure IV)

Section B: General information about accidents, burns and poisoning

This section contains general questions about accidents and questions related to burns and poisoning and regarding first aid measures in under five children. (Annexure IV).

Scoring and interpretation:

- Each question carries one mark each
- Each correct answer scores one mark and wrong answer scores zero mark
- Maximum score:24
- Minimum score: 0
- Interpretation:
  Adequate knowledge 17-24
  Moderately adequate knowledge 9-16
  Inadequate knowledge 1-8

3.5.1 Validity and reliability

The validity of the tool has been determined by expert's opinion. The experts were requested to give their valuable opinion and suggestions for modification of the tool. The suggestions were incorporated in the study. The tool after validation was subjected to test for its reliability**.** The reliability of the tool was computed by using split half method. The tool was found to be reliable and feasible (r = 0.75).

3.5.2 Techniques of data collection

Mothers who met the criteria were selected by using convenient sampling technique. Main study was conducted at Pediatric OPD of PSG Hospital, Coimbatore. Demographic data was obtained from participants. Knowledge of the mothers was assessed by using structured questionnaires.

3.5.3 Data collection procedure

Ethical clearance from the Institutional Human Ethics Committee of PSG Institute of Medical Science and Research was obtained to conduct the study. Permission was obtained from the head of department of pediatrics. After selecting the samples, data was collected through questionnaires to assess the knowledge of mothers of under five children regarding prevention of accidents.

Steps in data collection:

1. Obtaining consent from head of the department of pediatrics
2. Getting ethical clearance
3. Identifying the mothers of under five children in the selected setting
4. Obtaining informed consent from the participants of the study
5. Assessment of knowledge of mothers of under five children with questionnaire
6. Providing health information regarding prevention of accidents and their first aid measures.

3.6 Ethical approval

The Institutional Human Ethics Committee (IHEC), PSG Institute of Medical Science and Research reviewed the proposal on July 2015 in its expected review meeting and approved the study to be conducted. After getting ethical clearance (Annexure II) from Institutional Human Ethics Committee (IHEC) data collection was done.

3.7Report on pilot study

The study was conducted to test the practicability and feasibility of conducting the study. The study was conducted in pediatric OPD, PSG Hospital. Fifteen samples were selected according to the inclusion criteria. Knowledge of mothers having under five children were assessed. The result of the pilot study showed that there is association between some demographic variables and knowledge of mother. The study was found to be feasible

3.7.1 Changes brought after pilot study

No significant changes were made after pilot study.

3.8 Data analysis plan

Data should be analyzed to get effective and correct result. Hence data analysis is vital. Both descriptive and inferential statistics were used to analyze the data. Frequency and percentage will be used to describe the demographic characteristics and the knowledge of mothers regarding burns and poisoning. Chi-square test will be done to find the association between selected demographic data and knowledge level of mothers regarding prevention of accidents in under five children.

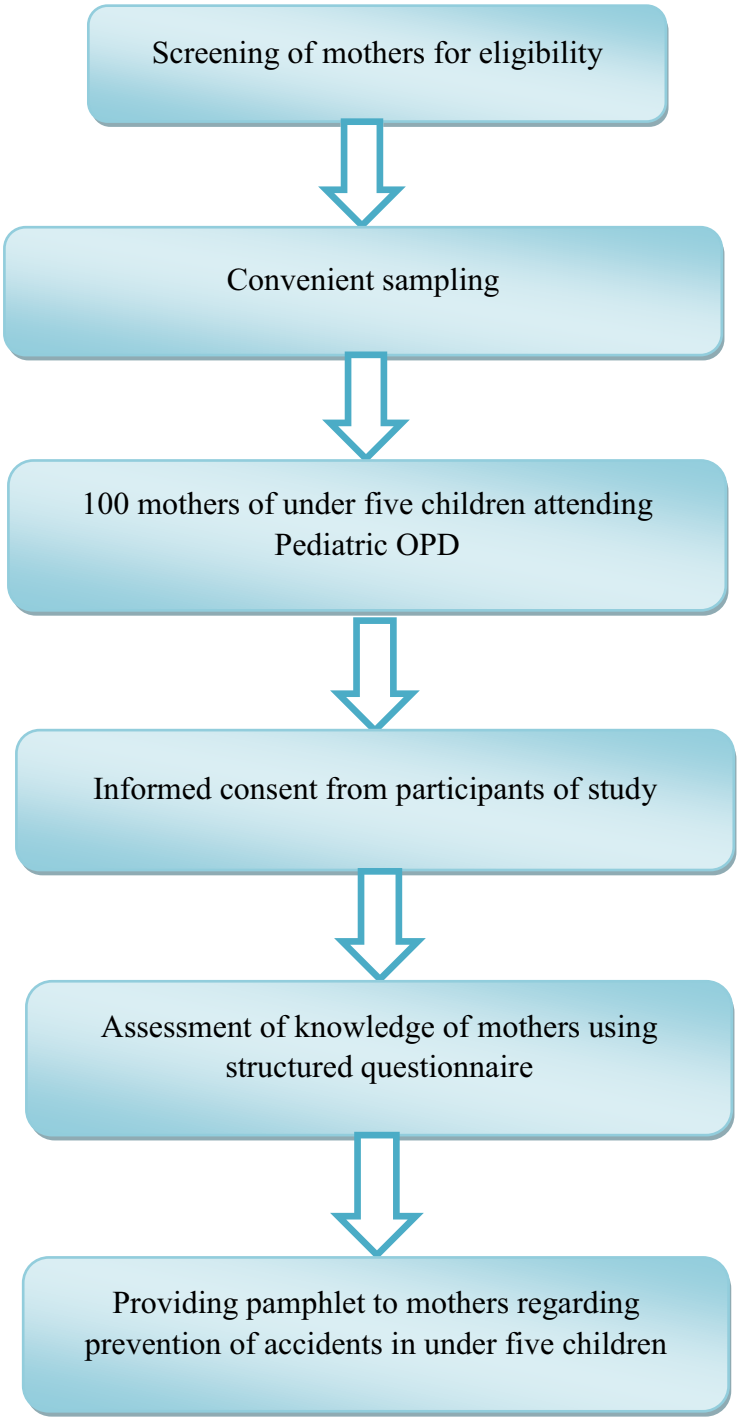

Figure 3.2 Schematic representation of Research process

CHAPTER IV

DATA ANAYLSIS AND INTERPRETATION

Analysis is a process of organizing the data in such a way that research question can be answered (Polit and Hungler, 1999). Data analysis is the process of systematically applying statistical and logical technique to describe and illustrate ,condense and evaluate data and hypothesis(The office of the research integrity, 2010). The researcher carefully evaluates the strategies of the study by guiding the validity of research. Interpretation is the process of making sum of the result and of examining implication of the finding with in a border context (Polit and Beck, 2004).

This chapter deals with the analysis of the data collected from the mothers of under five children. The knowledge of mothers regarding prevention of accidents in under five children were assessed. Data was collected from 100 mothers on demographic variables, general information about prevention of accidents, burns and poisoning. The data was compiled, analyzed and then tested for their significance through statistical analysis

This chapter is organized under the following sections:

- Demographic profile of the mothers with under five children.
- Frequency and distribution of knowledge score of mothers in terms of general information about accidents in under five children.
- Frequency and distribution of knowledge score of mothers in terms of burn injury in under five children.
- Frequency and distribution of knowledge score of mothers in terms of poisoning in under five children.
- Association of demographic variables on knowledge of mothers of under five children.

Table 4.1: Frequency and percentage distribution of mothers of under five children according to demographic profile

n =100

S No.	Demographic variables	Frequency (f)	Percentage (%)
1.	**Age of mother**		
	20-25years	37	37
	26-30years	41	41
	31-35years	15	15
	36-40years	7	7
2.	**Educational status of mother**		
	Illiterate	0	0
	Primary school	9	9
	Secondary school	66	66
	Graduate	25	25
3.	**Age of the child**		
	Below 1 year	51	51
	1-2years	30	30
	3-4years	16	16
	4-5years	3	3
4.	**Religion**		
	Hindu	72	72
	Christian	21	21
	Muslim	7	7
	Others	0	0
5.	**Family income**		
	1000-10000Rs	27	27
	11000-20000Rs	60	60
	21000-30000Rs	12	12
	Above 30000Rs	1	1

S. No	Demographic variables	Frequency (f)	Percentage (%)
6.	**Type of family**		
	Nuclear	65	65
	Joint	33	33
	Extended	0	0
	Single parent	2	2
7.	**Number of under five children in family**		
	One	82	82
	Two	18	18
	More than two	0	0
8.	**Type of house**		
	Kaccha	0	0
	Pakka	66	66
	Semipakka	34	34
	Tent		
9.	**History of previous accidents**		
	Yes	7	7
	No	93	93
10.	**Managed home accidents**		
	Yes	7	7
	No	93	93
11.	**Information about prevention of accidents**		
	Relatives	71	71
	Friends	9	9
	Mass media	17	17
	Books	3	3

Table 4.1 shows that among the sample of 100 mothers 41 (41%) of mothers were in the age group of 26-30 years and 37(37%) were in the age group between 20-25 years. Mothers in the age group of 31-35 years was 15(15%). Only 7(7%) mothers were in the age group of 36-40 years.

Most of mothers 66(66%) had secondary education and 25 (25%) mothers were graduates and the remaining 9(9%) mothers had only primary school. Among the selected samples none of the mothers were illiterate.

Among the 100 mothers half of them 51(51%) has children below 1 year of age, 30(30%) of mothers has children between the age group of 1-2years and about 16(16%) mothers had children in the age group of 3-4 years. Only 3(3%) of mothers has children between the age group of 4-5 years.

Almost 72(72%) of mothers were Hindus and 21(21%) of mothers are Christians and the rest 7(7%) were Muslim mothers.

About 60(60%) mothers has a family income between 11000-20000Rs. 27(27%) of mothers had a family income of 1000-10000Rs. And 12(12%) mothers has a family income between 21000-30000Rs.

Majority of the mothers 82(82%) has only one under five children in the family whereas 18(18%) mothers has two children under five years of age.

Up to 66 (66%) mothers resides in pakka house and 34(34%) mothers had semi pakka house. None of the mothers had kaccha or tent type of house

Majority of mothers 93(93%) has no history of previous accidents happened to their children and 93 mothers have no experience of managing home accidents. Remaining 7(7%) mothers have managed home accidents among children.

Nearly 71(71%) mothers has got information regarding prevention of accidents from their relatives and 17(17%) from mass media. 9(9%) mothers has got the information about prevention of accidents from friends .Only 3(3%) got information from books regarding preventing accidents

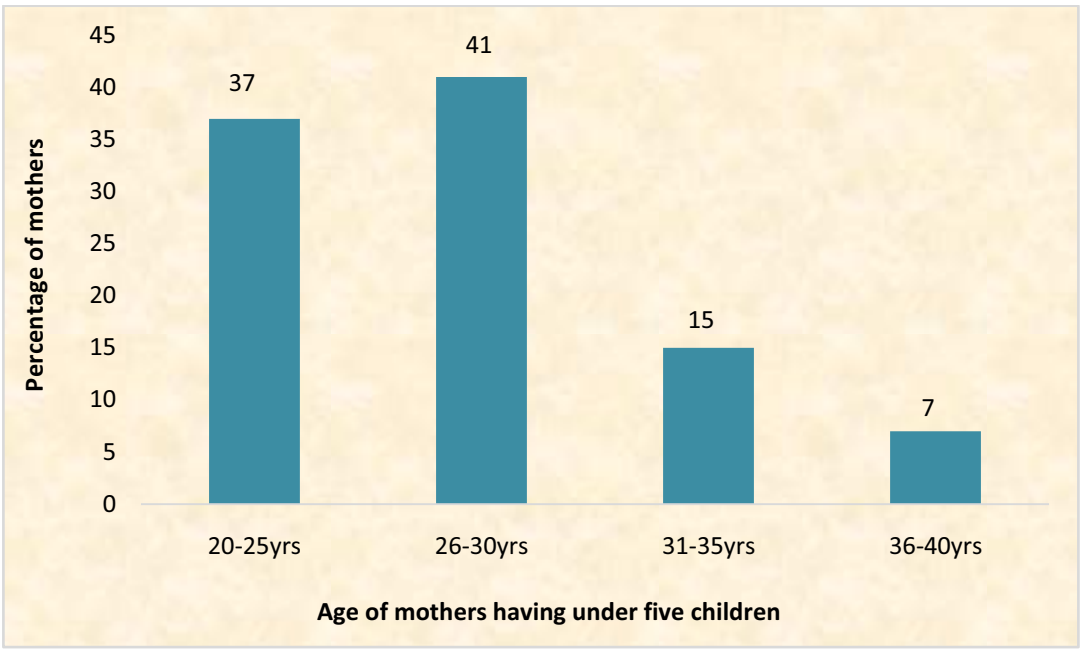

Figure 4.3 Bar diagram showing Percentage distribution of mother's age having under five children

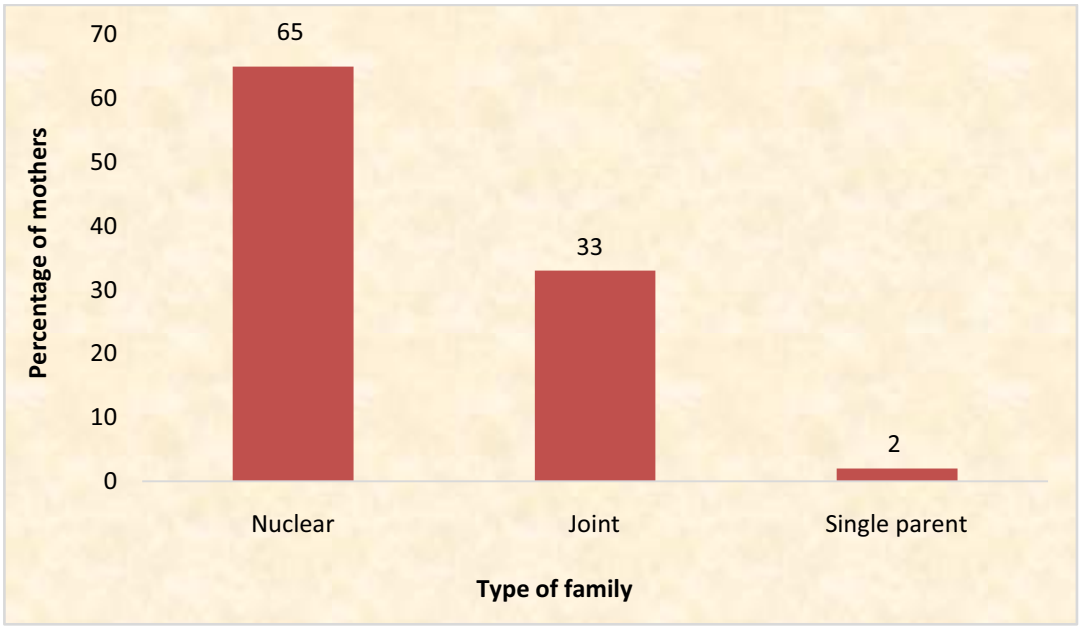

Figure 4.4 Bar diagram showing Percentage distribution of mothers on type of family having under five children

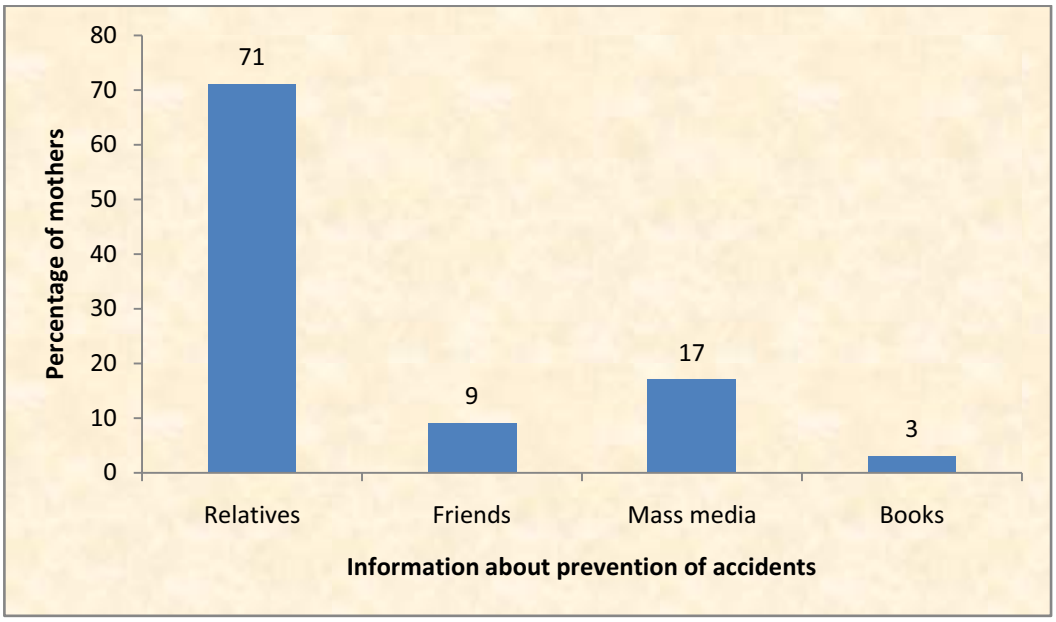

Figure 4.5 Bar diagram showing Percentage distribution of mothers on information about prevention of accidents in under five children

Table 4.2 Assessment of knowledge level of mothers of under five children on various aspects regarding general information about accidents

n =100

S. No	Various Aspects regarding general information about accidents	Correct response		Incorrect response	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1.	Meaning of accident	63	63%	37	37%
2.	Common causes of accidents	40	40%	60	60%
3.	Common age group for accidents	73	73%	27	27%
4.	How to prevent accidents in children	22	22%	78	78%

Meaning of accidents: Among the 100 mothers of under five children nearly 63% of them knew the meaning of accident. Eighteen mothers told that accident leads to hospitalization while 11% of mothers said it makes the child uneasy and 8% of them says accident causes mental disability.

Common cause for accidents: Forty percentage of the mothers responded correctly by saying that common cause for accidents are due to children's being unattended and unsupervised. Majority of mothers 47% of them responded wrongly saying that it is due to the increase in family size and 10 % of mothers responded saying that accidents are common in under five children as the children's are having poor knowledge regarding accidents. Only 3% of mothers said that accidents are common due to low economic status.

Common age group for accidents: About 73% of mothers responded that accidents are common in 1-5 years of age which was a correct response. Seventeen percentage of mothers says that accidents are common in 6-12 years and 3% said it may be common in newborns and the remaining 7% said it is common among children above 12 years.

How to prevent accidents in children: Twenty two mothers made it correct saying that supervising the child and taking preventive measures will prevent accidents in under five.

Table 4.3 Assessment of knowledge level of mothers of under five children on various aspects regarding burns

n =100

S. No	Various Aspects regarding burns	Correct response		Incorrect response	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1.	Common cause of burns in children	43	43%	57	57%
2.	How to keep hot cooked foods	58	58%	42	42%
3.	How to prevent burns from hot water while bathing the child	65	65%	35	35%
4.	Placement of electrical appliances and outlets	23	23%	77	77%
5.	How to prevent sunburns	45	45%	55	55%
6.	Preventing burns injury in children while cooking	57	57%	43	43%
7.	Preventing burns from hot fluids	68	68%	32	32%
8.	First aid measure in burns injury	58	58%	42	42%
9.	How to extinguish fire if a child is caught in fire	85	85%	15	15%
10.	Measures taken in case of minor burns	56	56%	44	44%

Common cause of burns in children: Only 16% of mothers responded correctly saying that common cause for burns are due to the curiosity of children to explore things. A majority of 43% of mothers says it occurs due to their age and about 33% of them said it is occurring because of the lack of knowledge of parents. Seven percentage of respondents said burns are common in children as the children's lack knowledge regarding these aspects.

How to keep hot cooked foods: Fifty eight percentage of them said it should be kept away from the reach of children and it was a correct response while 24% of mothers says hot cooked foods should be kept away from the vicinity of the child. Eleven percentage of the mothers responded wrongly that it should be kept on the table. Among 100 mothers7 percentage of them said the child should be instructed not to touch the hot cooked food.

How to prevent burns from hot water while bathing the child: Upto 65 percentage of mothers made the response correct saying that the temperature of bathing water must be checked always before bathing the child. Thirteen percentage of them said water must be kept away from the child and 19 percentage of mothers says that child should never be allowed to play in bathing water. Remaining 3% said not to bath the child in hot water.

Placement of electrical appliances and outlets: Majority of mothers 67% said that child must not be allowed to go near the appliances. Twenty three percentage responded correct that the appliances must be kept out of the reach of the child and outlets safeguarded and 7 percentage of mothers says to supervise the child all time. Only 3% mothers responded that children should be distracted from these objects.

How to prevent sunburns: Among 100 mothers 45% of them said that the child must be covered fully when taken outside. Rest of the mothers responded in another way like the child must not be taken outside in day light (34%), do not take the child outside (18%), and hydrate the child adequately (3%).

Preventing burns injury in children while cooking: Majority of the mothers 57% gave a response that not to hold the child in hand while cooking. Thirty two percentage of mothers said that the child must be kept away from the cooking area and 7% of mothers

says to distract the child with toys. Remaining 4 % mothers said to instruct the child not to come near the cooking area.

Preventing burns from hot fluids: Almost 68% mothers responded rightly that hot fluids should not be kept near the reach of the child. Ten percentage of mothers said that the fluid given to the child must always be cooled. Sixteen percentage of them responded by saying that children should not be allowed to take fluids by themselves and the least 6% of mothers says not to give hot fluid to children.

First aid measure in burns injury: Among 100 mothers 58% of them said to pour water in case of a burn injury. Twenty five percentage of mothers responded that to apply ink on the area of burn. Remaining 10% of mothers says to take the child to the hospital in case of burns and 7% of them said to apply ice pack on the site of burns.

How to extinguish fire if a child is caught in fire: Majority of mothers (85%) responded correctly that to roll the child in a blanket to extinguish fire if a child is caught in fire and the remaining 15% of mothers says that to pour water on the child to extinguish fire.

Measures taken in case of minor burns: Almost 56 % mothers had a response to a question regarding the measures taken in case of minor burn injury by responding that to dip the area of burn in water. The rest of the respondents said that to apply ointment in minor burns (43%) and one of the respondent says that clean cloth must be wrapped in the area of minor burn.

Table 4.4 Assessment of knowledge level of mothers of under five children on various aspects regarding poisoning

n =100

S. No	Various Aspects regarding poisoning	Correct response		Incorrect response	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1.	Preventing drug poisoning in under five children	69	69%	31	31%
2.	Storing of poisonous substances at home	87	87%	13	13%
3.	How to prevent poisoning when storing food items in containers	79	79%	21	21%
4.	Ways to prevent poisoning from toys	8	8%	92	92%
5.	How to supervise a child from not getting poisoned	66	66%	34	34%
6.	General symptoms in children with poisoning	74	74%	26	26%
7.	Measures to be taken at the event of poisoning	40	40%	60	60%
8.	First aid measure in case of any poisonous substance getting in contact with eyes	84	84%	16	16%
9.	First aid for poisoning in children	48	48%	52	52%
10.	First thing to be done when a poisoned child is shifted to the hospital	69	69%	31	31%

Preventing drug poisoning in under five children: Majority of mothers (69%) responded that by giving correct dose of medication as prescribed by the doctors, drug poisoning can be prevented in under five children. Remaining 31% mothers among 100 respondents said that the medication should be withheld to prevent drug poisoning.

Storing of poisonous substances at home: Nearly 87% of mothers made an appropriate response that poisonous substances should be stored away from the reach of child. Nine percentage of mothers says that it should be packed properly and 4% of them said to store the poisonous substances in tight containers to prevent poisoning in children.

How to prevent poisoning when storing food items in containers: Among 100 mothers 79% of them said that not to store corrosive substances in cool drink bottles to prevent poisoning in children. Seventeen percentage of mothers replied that to cover the poisonous substances and 4% of mother's responded saying to store poisonous substances in steel containers to prevent poisoning in children.

Ways to prevent poisoning from toys: Only 8% of mothers responded correctly that the toy given to the child must not contain lead and child friendly. About 72% of them said not to allow the children to bite the toy. Eighteen percentage of mothers says to give soft toys to children to play and 2% respondents said that only stuffed toys must be given to children to prevent poisoning from toys.

How to supervise a child from not getting poisoned: Majority of mothers 66%said never allow the child to take anything to mouth without supervision to prevent poisoning. About 18% of them said children should be given food only in the presence of parents. Ten percentage of mothers said not to allow the child to eat by themselves and the remaining 6% of mothers replied that to feed the child properly so that the poisoning in children can be prevented.

General symptoms in children with poisoning: Seventy four percentage responded appropriately that vomiting may be a general symptom in a child with poisoning. Fifteen percentage of mothers said that children will be unconscious and another seven percentage mothers among the 100 said that the child may not show any symptom of poisoning. Remaining 5% responded that child may have body pain in case of poisoning.

Measures to be taken at the event of poisoning: Among 100 mothers 51% of them says to give plenty of water after the poisoning has taken place in a child. Forty percentage of mothers responded appropriately identify the consumed poison and wash the mouth. Seven percentage mothers said to wait for assistance to shift child immediately to hospital and 2% replied that to advice child not to repeat the same.

First aid measure in case of any poisonous substance getting in contact with eyes: majority of the mothers 84% responded that eye must be washed with plenty of water as if any poisonous substance gets in contact with eyes. Twelve percentage of mothers says to shift the child to hospital whereas the rest 4% mothers among 100 respondents replied that to keep the eyes closed for few minutes.

First aid for poisoning in children: Fort eight percentage of mothers among 100 respondents said as a first aid measure in case of poisoning in under five children vomiting must be induced. The response of 23% of mothers was that to give plain water and 17% of them choose an option of giving salt water to the poisoned child as a first aid measure. The remaining 12 % said to identify the consumed poison and shift child to hospital.

First thing to be done when a poisoned child is shifted to the hospital: Up to 69% of mothers said to carry the bottle of poison to the hospital which was consumed by the child. Fourteen percentage of mother responded that to give water to the child and 11% of the respondents said to keep the child conscious.

Table-4.5 Frequency distribution of knowledge scores in terms of general information about accidents

n =100

S. No.	Level of knowledge (score)	Frequency (f)	Percentage (%)
1	Adequate knowledge (3-4)	56	56%
2	Moderately adequate knowledge (1-2)	40	40%
3	Inadequate knowledge (0)	4	4%

Table-4.5 shows that 56(56%) of mothers had adequate knowledge regarding general information about accidents and 40(40%) mothers had moderately adequate knowledge. Only 4(4%) mothers had inadequate knowledge on general information about accidents among under five children.

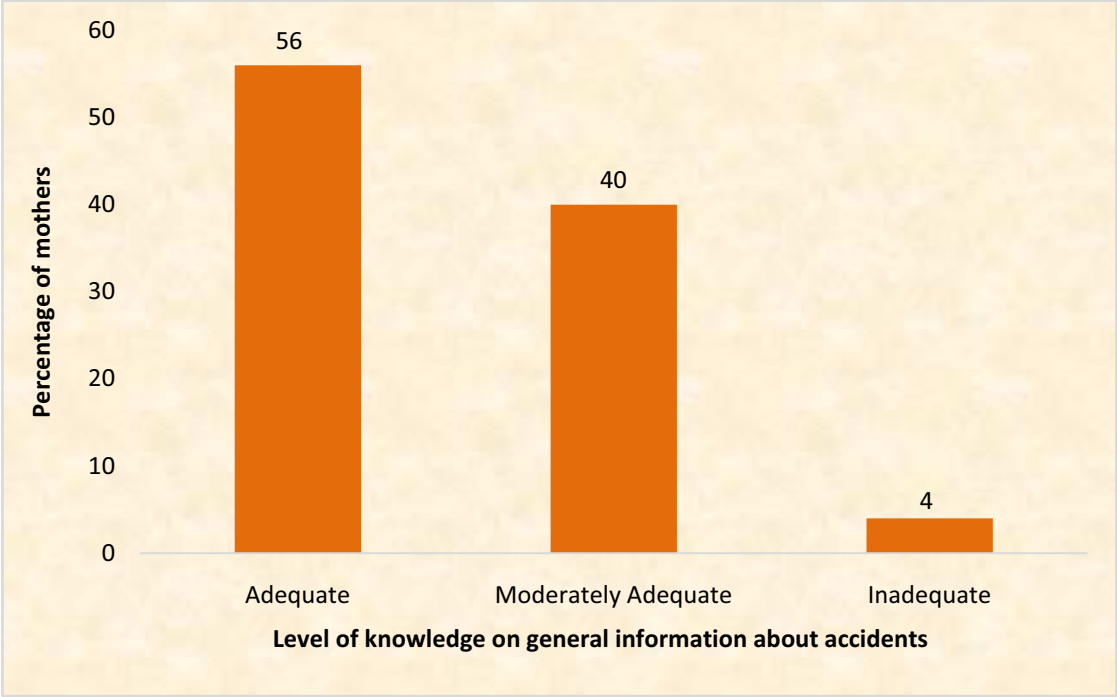

Figure 4.6 Bar diagram showing percentage distribution of mothers on knowledge regarding general information about accidents in under five children

Table-4.6 Frequency distribution of knowledge scores in terms of burns among under five children.

n =100

S NO	Level of knowledge (score)	Frequency (f)	Percentage (%)
1.	Adequate knowledge (7-10)	54	54%
2.	Moderately adequate knowledge (4-6)	36	36%
3.	Inadequate knowledge (0-3)	10	10%

Table-4.6 shows that 54(54%) of mothers had adequate knowledge regarding burn injuries and 36(36 %) mothers had moderately adequate knowledge. The remaining 10(10%) mothers had inadequate knowledge on burn injuries among under five children.

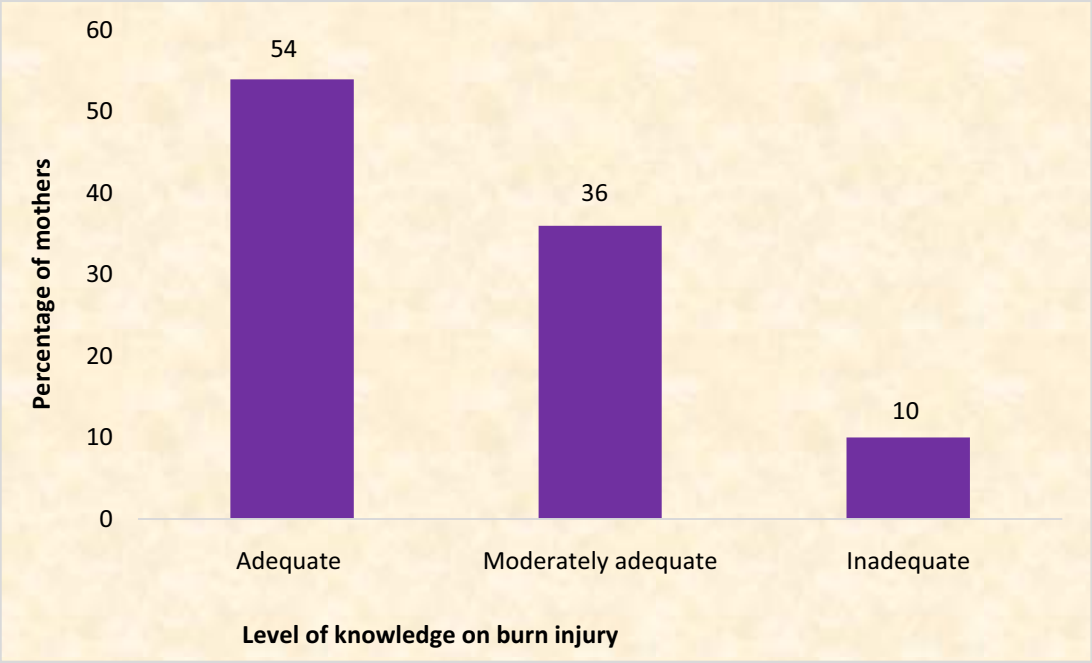

Figure 4.7 Bar diagram showing percentage distribution of mothers on knowledge regarding burns in under five children

Table-4.7 Frequency distribution of knowledge scores in terms of poisoning among under five children

n = 100

S. No.	Level of knowledge (score)	Frequency (f)	Percentage (%)
1.	Adequate knowledge (7-10)	61	61%
2.	Moderately adequate knowledge (4-6)	31	31%
3.	Inadequate knowledge (0-3)	8	8%

Table-4.7 shows that 61(61%) of mothers had adequate knowledge regarding poisoning in under five children and 31(31%) mothers had moderately adequate knowledge. About (10%) mothers had inadequate knowledge on poisoning.

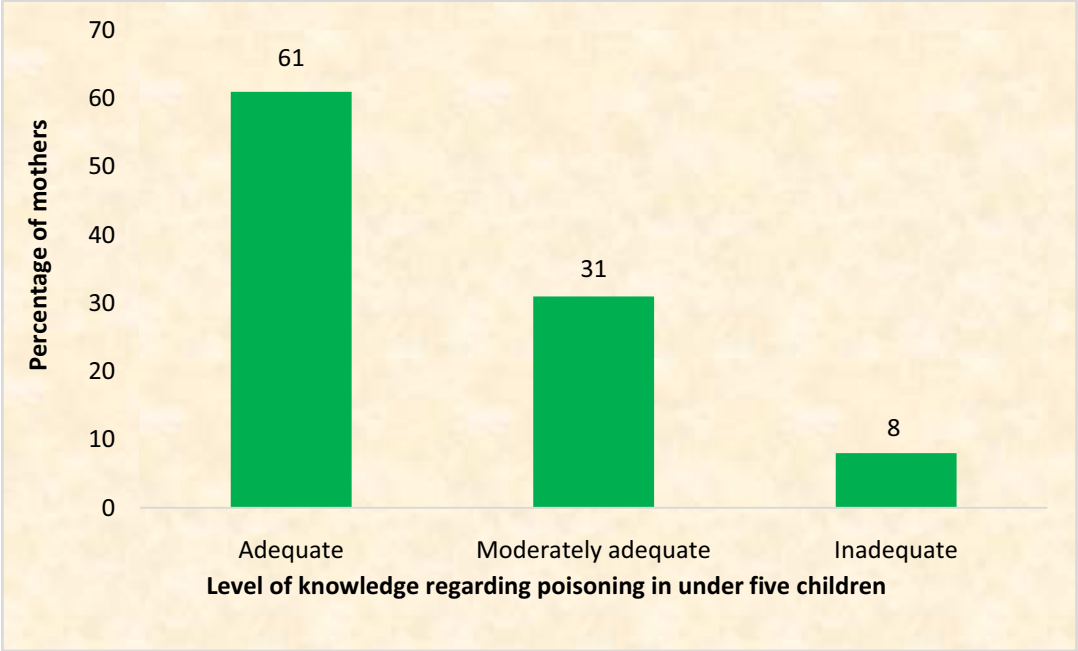

Figure 4.8 Bar diagram showing percentage distribution of mothers on knowledge regarding poisoning in under five children

Table-4.8 Frequency distribution of knowledge scores in prevention of accidents in under five children

n = 100

S. No.	Level of knowledge (score)	Frequency (f)	Percentage (%)
1.	Adequate knowledge (17-24)	54	54%
2.	Moderately adequate knowledge (9-16)	37	37%
3.	Inadequate knowledge (1-8)	9	9%

Table-4.8 shows that 54(54%) of mothers had adequate knowledge regarding prevention of accidents and 37(37%) mothers had moderately adequate knowledge on prevention of accidents. Only 9(9%) mothers had inadequate knowledge about prevention of accidents among under five children.

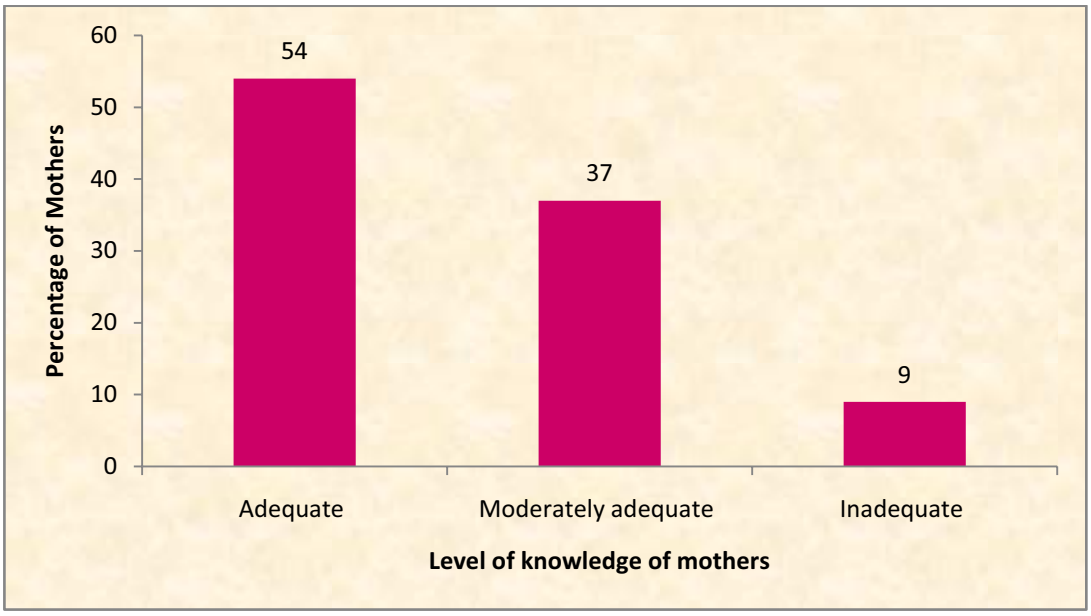

Figure 4.9Bar diagram showing the level of knowledge of mothers on prevention of accidents among under five children

Table-4.9 Association of knowledge of mothers of under five children with selected demographic variable

n =100

S No.	Demographic variables	Adequate knowledge	Moderately adequate knowledge	Inadequate knowledge	df	Chi-square value	Table value
1.	**Age of mother**						
	20-25years	18	17	2	6	13.76*	12.59
	26-30years	24	13	4			
	31-35years	10	5	0			
	36-40years	2	2	3			
2.	**Educational status of mother**						
	Illiterate	0	0	0	4	8.62	9.48
	Primary school	3	3	3			
	Secondary school	35	27	4			
	Graduates	16	7	2			
3.	**Family income**						
	1000-10000Rs	15	9	3	6	2.10	12.59
	11000-20000Rs	32	23	5			
	21000-30000Rs	7	4	1			
	Above 30000Rs	7	4	1			

S No.	Demographic variables	Adequate knowledge	Moderately adequate knowledge	Inadequate knowledge	df	Chi-square value	Table value
4.	**Type of family**						
	Nuclear	38	24	3	4	14.89*	9.48
	Joint	15	13	5			
	Extended	0	0	0			
	Single parent	1	0	1			
5.	**History of previous accidents**				2	2.32	5.99
	Yes	5	2	0			
	No	49	35	9			
6.	**Managed home accidents**						
	Yes	5	2	0	2	2.32	5.99
	No	49	35	9			
7.	**Information about prevention of accidents**						
	Relatives	39	26	6	6	13.97*	12.59
	Friends	5	4	0			
	Mass media	10	6	1			
	Books	0	1	2			

Statistically significant - *P<0.05

Table 4.9 shows there is association between age of mothers in the age group of 26-30 years had significantly more knowledge regarding prevention of accidents in under five children. Association was also found in mothers living in nuclear type of family and was found that they have adequate knowledge regarding prevention of accidents. Mothers of under five children who got information regarding prevention of accidents from relatives also had adequate knowledge on prevention of accidents ($P< 0.05$). Similarly there was no significant association with other variables like education of mother, family income, type of house, number of under five children in the family, history of previous accidents and managing home accidents ($P< 0.05$).

CHAPTER V

RESULTS AND DISCUSSION

This chapter presents the major findings and are discussed in relation to similar studies conducted by other researchers. The main aim of the study was to assess the knowledge of mothers in prevention of accidents in under five children.

5.1 Demographic data of mothers with under five children:

The present study showed that, nearly 41% mothers belong to 20-26 years and 37 belong to 20-25years. This finding has been supported by a study conducted in a village of Assiut governorate which depicts that majority of mothers were between the age of 25-35 were 46.3%. **(NaglaaSaad, 2005).**

A study which was conducted to assess the knowledge of mothers regarding prevention of accidents among under five children in karkalla also reported 46% mothers were in the age of 26-30. **(Suchithra BS, 2015)**

Majority of the mothers (66 %) in this study has secondary education and only 25 were graduates. While a study on prevention of accidents among under five children shows that 42% of mothers had secondary education and 22% had high education. **(Afkar Ragab Mohammed, 2013)**

In this study among the 100 mothers (60%) of them have family income between Rs11,000-20,000 and only one mother earns above Rs30,000.A similar study was conducted in Tirunelveli district in which the family income above Rs 5000 were 57.4%. **(Suguna, 2015)**

Among the 100 mothers (72%) were Hindus and21% were Christians. These findings corresponds to a study was conducted in 100 mothers to assess knowledge regarding prevention of accidents among under-five children attending MCH clinic showed that 85% 0f mothers were Hindus. **(Sandhya Shrestha, 2014)**

With regard to type of family, almost (65%) mothers were from nuclear family and 33 were from joint family. In a study conducted in Belgaum to assess the knowledge

of mothers of toddlers regarding prevention of household injuries also showed that (73.3%) of mothers from nuclear family and only 26.6% from joint family. **(Kole, Devulkar, 2014).**

5.2 Assessment of knowledge of mothers regarding burn injury in under five children

In this present study even though (54%) of mothers had adequate knowledge regarding burn injuries 43% of mothers were unaware of the common causes of accidents, 73% had inadequate knowledge regarding placement of electrical appliances and outlets and 55% didn't know the preventive measure against sunburns .

In a similar study there was statistical differences between pre and post supportive strategy in mothers knowledge about measures used to prevent burns .In pre test score was 89% of mothers had unsatisfactory knowledge regarding prevention of accidents and in the post test there were only 5% with inadequate knowledge. (Chi square value 0.9, $P<0.02$) .**(Afkar Ragab, 2013)**

In a study conducted to characterize the presentation of burns in children and risk factors associated with their occurrence about 740 cases and controls were enrolled. Altogether 77.5% of the cases burns occurred in the patient's home, with 67.8% in the kitchen 74% were due to scalding and were associated with poor knowledge of mothers. **(J Delgado, 2002)**

5.3 Assessment of knowledge of mothers regarding poisoning in under five children

In the present study 61%of mothers had adequate knowledge regarding poisoning in under five children but about 92% mothers were not aware of the prevention of poisoning in children from toys, 60% had inadequate knowledge regarding first aid measure to be taken at event of poisoning

In a similar study in mothers of under five children on storage of items that are conventionally supposed to be kept out of the reach of preschool children, more respondents 46.1% kept the kerosene container on the floor while 18.9% kept drugs in open container. About 8% poisoning occurred due to the poor knowledge of mothers

regarding storage and in first aid management. **(Oyedunni Sola Arulogun, Olubunmi Ikolo, Mojisola Oluwasanu, 2013)**

5.4 Assessment of knowledge of mothers regarding prevention of accidents in under five children.

Among the 100 mothers of this study 54% of mothers had adequate knowledge regarding prevention of accidents. And 37% mothers had moderately adequate knowledge on prevention of accidents. Only 9% mothers had inadequate knowledge about preventing accidents among under five children**.**

A similar study conducted to assess the knowledge of mothers study reveals that 26% people have good knowledge and 73%of mothers average knowledge whereas have 1% people have poor knowledge regarding accident prevention of children under five children. **(Sandhya Shrestha, 2014)**

The same was found regarding knowledge of preventing electrical accidents caused by power sockets or electrical appliances where only 10.2% of mothers showed adequate knowledge and 88.8% were found to have inadequate knowledge. Only 9.2% of mothers had good knowledge regarding dealing with chemicals and detergents and more than 90% were categorized as having poor knowledge. For accidents caused by sharp instruments in the kitchen only 6.3% of the mothers achieved a score that indicated good knowledge of accident prevention. **(Riyadh K. Lafta, Sahar A. Al-Shatari, Seba Abass, 2013)**

A study was conducted to identify the knowledge of mothers on prevention of accidents among toddlers in selected community of Mangalore. Among that 66 % mothers had poor knowledge and 34% mothers have adequate knowledge regarding prevention of accidents among toddlers**. (Ulhas Patel, 2013)**

5.5 Association of knowledge of mothers with selected demographic variables.

In this study, a significant association was found between knowledge and age of mother, type of family and source of information ($P<0.05$). There was no association found between educational status of mother, family income, history of previous accidents and managed home accidents.

In a study to assess knowledge of the mothers on prevention of accidents among toddlers seems to have significant association with type of family, religion, age, educational status and occupation of the mother. **(Jayalakshmi L.S, 2004)**

Whereas the study findings by Candan et al in his study shows that there is significant association between mother's educational status and incidents of accidents ($P<0.05$).The higher education levels of the mothers of children caused to decrease accident frequency. The results showed that when parent's education level decreases, the frequency of home accidents increases. **(Candan. et. al, 2010)**

A contrasting study on assessment of knowledge of mothers on prevention of accidents in under-five seems to have no significant association with age of the mother, educational status, and type of family, occupation, family monthly income and number of living children. **(Nanthini Subbaiah, 2006)**

CHAPTER VI

SUMMARY AND CONCLUSION

The present study was conducted to assess the knowledge of mothers in safety of under five children regarding prevention of accidents in PSG Hospital, Coimbatore. Relevant literatures were reviewed to assess the knowledge of mothers on prevention of accidents, selecting appropriate conceptual model, developing a frame work and research plan.

Research design adopted for the study was descriptive survey design. The study was conducted in PSG Hospital, Coimbatore. Hundred mothers with children under five years of age were selected for the study using convenient sampling method. The knowledge of mothers were assessed through structured knowledge questionnaire.

The data was collected from mothers through interview technique. Both descriptive and inferential statistics were used to analyze the data. Chi square test were used to find the association between knowledge and selected demographic variables

6.1 Major Findings of the Study

6.1.1 Findings regarding demographic variables

- Nearly 51(51%) mothers has children below 1 year of age.
- About 60(60%) mothers has a family income between Rs11, 000-20,000.
- Majority of the mothers 82(82%) has one under five child in the family.
- Up to 66 (66%) mothers has pakka type of house.
- Ninety three (93%) mothers has no history of previous accidents to their children.
- Almost 93(93%) mothers have no experience of managing home accidents.

6.1.2 Findings regarding knowledge of mothers about general information on accidents in under five children

- Nearly 63% mothers knew what is meant by an accident in under five children.
- Almost 73% of mothers responded correctly about the common age group of accidents.

- Up to 60% of mothers had inadequate knowledge regarding common causes of accidents.
- Majority of mothers 78% were unaware about prevention of accidents in under five children.
- Forty percentage of mothers has knowledge regarding the common cause of accidents in under five children.
- About 56% of mothers had adequate knowledge regarding general information about accidents.

6.1.3 Findings regarding knowledge of mothers regarding burns in under five children

- Fifty eight mothers knew how to keep hot cooked foods when children are present
- About 43 % of mothers has knowledge regarding the common causes for burns whereas 57% responded wrong.
- Majority of mothers 77% had inadequate knowledge regarding placement of electrical appliances and outlets.
- Up to 57% of mothers know how to prevent burns in children while cooking.
- Almost 68% of the respondents has knowledge regarding prevention of burns from hot fluids
- Nearly 55% of mothers were unaware of the preventive measures against sunburns in under five children.
- Fifty eight mothers are aware of the first aid measures that to be followed in burn injury
- Fifty four (54%) of mothers had adequate knowledge regarding burn injury in under five children.

6.1.4 Findings regarding knowledge of mothers regarding poisoning in under five children

- Majority of mothers (69%) has knowledge on preventing drug poisoning in under five children.

- Eight seven percentage of mothers knew how to store poisonous substance at home.
- Nearly 66% made correct response regarding how to supervise a child from not getting poisoned.
- Almost 92% of mothers were unaware of the ways to prevent poisoning from toys in under five children.
- Sixty percentage of mothers had inadequate knowledge regarding measures to be taken at the event of poisoning in under five children
- Up to 74% of mothers knew about the generals symptoms of poisoning.
- Forty eight percentage of mothers responded correctly about the first aid measures to be taken in poisoning.
- Almost 61% of mothers had adequate knowledge regarding poisoning in under five children.
- About 52% of mothers responded wrongly to the first aid measure in poisoning

6.1.5 Findings regarding knowledge assessment of mothers on prevention of accidents in under five children

In whole aspect nearly 54% mothers had adequate knowledge regarding prevention of accidents and 37% mothers had moderately adequate knowledge on prevention of accidents.

6.1.6 Findings regarding association between knowledge and selected demographic variables

A significant association was found between knowledge of mothers with age of mother, type of family and information about prevention of accidents ($P< 0.05$).

6.2 Conclusion

The study reveals that there is significant gap in women's knowledge regarding prevention of accidents and first aid management. Accidents was seen as inevitable and part of normal child growth and development. All these may have attributed to lack of importance attached to accidents, lack of detailed information and awareness on the

severity and consequences. There is a need for health education programs mainly for mothers and other caregivers.

6.3 Nursing Implication

The present study has implication for nursing practice, nursing education, nursing administration and nursing research.

6.3.1 Nursing practice:

- There should be a continuous education program for nurses regarding prevention of accidents and first aid management in under five children.
- Nurses in clinical and community settings have a key role in assessing the knowledge of mothers of under five children regarding prevention of accidents.
- Nurses must involve in educating the mothers and caregivers of under five children on the importance of prevention of accidents to develop and improve the knowledge of mothers of under five children regarding preventive measures against occurrence of accidents.

6.3.2 Nursing Education:

- All aspects of prevention of accidents in under five children must be emphasized in nursing curriculum.
- Nursing curriculum should include training on prevention of accidents and first aid management.

6.3.3 Nursing Administration:

- Organizing education programs on prevention of accidents for all mothers who have children below five years of age.
- Organizing training program on prevention of accidents for staff nurses on first aid management.

6.3.4 Nursing Research:

The nurses as well as students should be encouraged to take more qualitative and quantitative researches related to prevention of accidents in under five children.

6.4 Limitations:

- The study was done only in a Pediatric OPD setting.
- The study was conducted in mothers available at the time of study.
- Only the knowledge of the mothers were assessed in the study.

6.5 Recommendations

- Supportive strategies for families should be directed towards children less than five years.
- Community awareness about accidents prevention and how to provide first aid for children in emergency situations.
- Similar study can be carried out for other care givers of under five children regarding prevention of accidents.
- The present study can be conducted on a larger population in community setting.

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ANNEXURE-I

PSG COLLEGE OF NURSING, COIMBATORE – 4.

Ref.No: CN/106/15

Date: 05.06.2015

To

The Medical Director
PSG Hospitals
Peelamedu
Coimbatore – 4

Respected Sir,

This is to inform you that **Ms. Jeethu.K.R** II M.Sc nursing student studying in PSG College of Nursing, Coimbatore is planning to conduct a study on **"To Assess the Knowledge of mothers in safety of underfive children regarding prevention of accidents in view to provide an information booklet in PSG Hospitals, Coimbatore."** as part of her PG Dissertation work.

Kindly grant her permission for conducting the study in our Hospital. We assure you that the study will be conducted without disturbing the routine activities of the Hospital.

Thanking you,

Ethics approval needed.

PRINCIPAL

Cc to: The HOD Pediatrics

PERMISSION LETTER

From,

Jeethu K R

II nd Year M Sc Nursing

PSG College of Nursing

Peelamedu ,Coimbatore -4

To,

Dr. John Mathai

Head of the department

Pediatrics

PSG Hospitals

Peelamedu , Coimbatore-4

Respected Sir,

Subject: seeking permission to carry out the study in mothers coming to pediatric OPD and pediatric ward, PSG Hospitals, Coimbatore

IamJeethu K R II nd year M SC Nursing student is interested in doing the study to assess the knowledge of mothers in safety of under five children regarding prevention of accidents at PSG Hospital Coimbatore . Hence kindly grant me the permission to carry out the study in pediatric ward and pediatric OPD , PSG Hospitals, Coimbatore.

Thanking you,

Date:

Place:

Yours sincerely

Jeethu K R

I Ind Year M Sc Nursing

Signature of HOD:

ANNEXURE-II

PSG Institute of Medical Sciences & Research
Institutional Human Ethics Committee
Recognized by The Strategic Initiative for Developing Capacity in Ethical Review (SIDCER)
POST BOX NO. 1674, PEELAMEDU, COIMBATORE 641 004, TAMIL NADU, INDIA
Phone : 91 422 - 2598822, 2570170, Fax : 91 422 - 2594400, Email : ihec@psgimsr.ac.in

To
Ms Jeethu K R
II M Sc Nursing
PSG College of Nursing
Coimbatore

Ref: Project No.15/234

Date: July 16, 2015

Dear Ms Jeethu,

Institutional Human Ethics Committee, PSG IMS&R reviewed and discussed your application dated 07.07.2015 to conduct the research study entitled *"A study to assess the knowledge of mothers in safety of under five children regarding prevention of accidents in a view to prepare information booklet at PSG Hospitals, Coimbatore"* during the IHEC meeting held on 10.07.2015.

The following documents were reviewed and approved:

1. Project Submission form
2. Study protocol
3. Parental consent form
4. Data collection tool
5. Permission letter from Medical Director and concerned Head of the Department
6. Current CVs of Principal investigator, Co-investigator
7. Budget

The following members of the Institutional Human Ethics Committee (IHEC) were present at the meeting held on 10.07.2015 at IHEC Secretariat, PSG IMS & R between 10.00 am and 11.00 am:

Sl. No.	Name of the Member of IHEC	Qualification	Area of Expertise	Gender	Affiliation to the Institution Yes/No	Present at the meeting Yes/No
1	Dr. P. Sathyan (Chairperson, IHEC)	DO, DNB	Clinician (Ophthalmology)	Male	No	Yes
2	Dr. S. Bhuvaneshwari (Member-Secretary, IHEC)	MD	Clinical Pharmacology	Female	Yes	Yes
3	Dr. S.Shanthakumari	MD	Pathology, Ethicist	Female	Yes	Yes
4	Dr Sudha Ramalingam	M.D	Epidemiologist Alt. Member – Secretary	Female	Yes	Yes
5	Dr D Vijaya	M Sc., Ph D	Basic Medical Sciences (Biochemistry)	Female	Yes	Yes

The study is approved in its presented form. The decision was arrived at through consensus. Neither PI nor any of proposed study team members were present during the decision making of the IHEC. The IHEC functions in accordance with the ICH-GCP/ICMR/Schedule Y guidelines. The approval is valid until one year from the date of sanction. You may make a written request for renewal / extension of the validity, along with the submission of status report as decided by the IHEC.

PSG Institute of Medical Sciences & Research
Institutional Human Ethics Committee
Recognized by The Strategic Initiative for Developing Capacity in Ethical Review (SIDCER)
POST BOX NO. 1674, PEELAMEDU, COIMBATORE 641 004, TAMIL NADU, INDIA
Phone : 91 422 - 2598822, 2570170, Fax : 91 422 - 2594400, Email : ihec@psgimsr.ac.in

Following points must be noted:

1. IHEC should be informed of the date of initiation of the study
2. Status report of the study should be submitted to the IHEC every 12 months
3. PI and other investigators should co-operate fully with IHEC, who will monitor the trial from time to time
4. At the time of PI's retirement/intention to leave the institute, study responsibility should be transferred to a colleague after obtaining clearance from HOD, Status report, including accounts details should be submitted to IHEC and extramural sponsors
5. In case of any new information or any SAE, which could affect any study, must be informed to IHEC and sponsors. The PI should report SAEs occurred for IHEC approved studies within 7 days of the occurrence of the SAE. If the SAE is 'Death', the IHEC Secretariat will receive the SAE reporting form within 24 hours of the occurrence
6. In the event of any protocol amendments, IHEC must be informed and the amendments should be highlighted in clear terms as follows:
   a. The exact alteration/amendment should be specified and indicated where the amendment occurred in the original project. (Page no. Clause no. etc.)
   b. Alteration in the budgetary status should be clearly indicated and the revised budget form should be submitted
   c. If the amendments require a change in the consent form, the copy of revised Consent Form should be submitted to Ethics Committee for approval
   d. If the amendment demands a re-look at the toxicity or side effects to patients, the same should be documented
   e. If there are any amendments in the trial design, these must be incorporated in the protocol, and other study documents. These revised documents should be submitted for approval of the IHEC and only then can they be implemented
   f. Any deviation-Violation/waiver in the protocol must be informed to the IHEC within the stipulated period for review
7. Final report along with summary of findings and presentations/publications if any on closure of the study should be submitted to IHEC

Kindly note this approval is subject to ratification in the forthcoming full board review meeting of the IHEC.

Thanking You,

Yours Sincerely,

SECRETARY
PSG IMS&R
COIMBATORE-641004
INSTITUTIONAL HUMAN ETHICS COMMITTEE

Dr S Bhuvaneshwari
Member - Secretary
Institutional Human Ethics Committee

ANNEXURE-III

PSG Institute of Medical Science and Research, Coimbatore
Institutional Human Ethics Committee

PARTICIPANTINFORMATION SHEET

I, Jeethu KR carrying out a study on the topic:**"A study to assess the knowledge of mothers in safety of under five children regarding prevention of accidents in PSG Hospital Coimbatore".**

My research project is being carried out under the Department of Child Health Nursing under the guidance of Dr. G.Malarvizhi Professor and Head of the Department, Child Health Nursing, PSG CON .

The objective of the study is to assess the knowledge of mothers regarding the prevention of accidents in under five children. I request you to kindly cooperate with me in this study. I propose collect background information and other relevant details related to this study. Data collected will be stored for a period of 5 years. I will not use the data as part of another study.

Benefits from the study are improvement of knowledge levels in mothers of under five children. The result will be disseminated through thesis and will submit to nursing regulatory bodies and might be used for conference presentation

If you are uncomfortable in answering any of our questions during the course of the interview **you have the right to withdraw from the interview / study at anytime.** You have the freedom to withdraw from the study at any point of time. Kindly be assured that your refusal to participate or withdrawal at any stage, if you so decide, will not result in any form of compromise or discrimination in the services offered nor would it attract any penalty. You will continue to have access to the regular services offered to a patient. You will **not** be paid any remuneration for the time you spend with us for this interview / study. The information provided by you will be kept in strict confidence. Under no circumstances shall we reveal the identity of the respondent or their families to anyone. The information that we collect shall be used for approved research purposes only. You will be informed about any significant new findings.

If you have any doubts regarding the study or need further clarifications of the study please kindly contact:

Ms. Jeethu. K .R, IInd year MSc pediatric Nursing, PSG CON, Phone no:8547108668

Dr.G. Malarvizhi, Professor and HOD, Child Health Nursing, PSG CON

INFORMED CONSENT FORM

The above information regarding the study, has been read by me/ read to me, and has been explained to me by the investigator/s. Having understood the same, I hereby give my consent to be a participant of the study . I have been explained about the blood sampling to be done using lancet to measure the hemoglobin level and assess the signs and symptoms of anemia.
I am affixing my signature / left thumb impression to indicate my consent and willingness to participate in this study (i.e., willingly abide by the project requirements).

Signature / Left thumb impression of the Study Volunteer / Legal Representative:

Signature of the Interviewer with date:

Witness:

Contact number of PI: 8547108668

Contact number of Ethics Committee Office: 0422 2570170 Extn.:5818

பங்கேற்பவரின் தகவல் படிவம்

ஜீது ஆகிய நான் எடுத்துள்ள படிப்பின் தலைப்பின் "விபத்து தடுப்பு முறை பற்றி ஐந்து வயதுக்குக் கீழ் உள்ள குழந்தைகளைப் பாதுகாக்கும் தாய்மார்களின் அறிவை அளவிடும் படிப்பு".

எனது இந்த ஆராய்ச்சி, குழந்தைகளி நல செவிலியர் துறையில், டாக்டர். G. மலர்விழி, பேராசிரியர் மற்றும் குழந்தைகள் நல செவிலியர் துறையின் தலைவர் அவர்களின் வழிகாட்டுதலின் படி, பி. எஸ். ஜி செவிலியர் கல்லூரியின் தலைமையின் கீழ் மேற்கொள்ளப்படுகிறது.

இந்த படிப்பின் பொருள் ஐந்து வெயதுக்கு கீழ் உள்ள குழந்தைகளைப் பாதுகாக்கும் தாய்மார்களின் விபத்து தடுப்பு முறை பற்றிய அறிவை அளவிடுதல். இந்த படிப்பில் நீங்களும் என்னுடன் ஒத்துழைக்குமாறு கேட்டுக்கொள்கிறேன். இந்த படிப்பின் பின் உள்ள செய்திகள் மற்றும் அது தொடர்பான வேறு சில தகவல்களும் சேகரிக்கப்படுகிறது. சேகரிக்கப்பட்ட செய்திகள் 5 வருடங்களுக்கு பாதுகாக்கப்படும். இந்த செய்திகளை வேறு எந்தபடிப்புக்கும் பயன்படுத்த மாட்டேன்.

இந்த படிப்பின் நன்மை, 5 வயதுக்குக் கீழ் குழந்தைகள் உள்ள தாய்மார்களைன் அறிவை அதிகப்படுத்துவது.

நாங்கள் கேட்கும் வினாக்களுக்கு நீங்கள் பதில் கூறத் தயங்கினால் நேர்கானலின் போது நீங்கள் இந்த நேர்கானலை நிறுத்துவதற்கு உங்களுக்கு உரிமை உண்டு. அதற்கு உங்களுக்கு முழு சுதந்திரம் உண்டு. நீங்கள் நேர்கானலை இடையில் நிறுத்த முடிவெடுத்தால் நாங்கள் உங்களை எந்த வகையிலும் கட்டாயப்படுத்தவோ அபராதம் எதுவும் செலுத்த வேண்டாம் என்று கேட்டுக்கொள்கிறோம். நீங்கள் இந்த நேர்கானலுக்கு எந்த தொகையோ மற்றவையோ செலுத்த வேண்டாம் நீங்கள் கொடுக்கும் செய்திகள் எங்களிடம் உறுதியாக பாதுகாக்கப்படும். நாங்கள் கேட்கும் செய்திகள் ஆராய்ச்சிக்காக மட்டும் பயன்படுத்தப்படும். நீங்கள் ஏதாவது புதிதாக கண்டீர்களானால் எங்களை தொடர்பு கொள்ளவும்.

இந்த படிப்பைப் பற்றி மேலும் சந்தேகம் அல்லது தெளிவு தேவை எனில் எங்களைத் தொடர்பு கொள்ளவும்

Ms. ஜீது K.R தொட்ர்புக்கு: 8547108668
டாக்டர். G. மலர்விழி, பேராசிரியர், தலைவர், குழந்தைகள் நல செவிலியர் துறை,
பி. எஸ். ஜி செவிலியர் கல்லூரி.

ஒப்புதல் படிவம்

மேலே கூறப்பட்ட படிப்பைப் பற்றிய தகவல் என்னால் வாசிக்கப்பட்டு, அவர்களால் தெளிவாகக் கூறப்பட்டது. எல்லாவற்றையும் புரிந்து கொண்டு, நான் அவர்கள் என்னை நேர்காணல் செய்யலாம் என்று நான் உறுதி அளிக்கிறேன். நான் இங்கு இடும் கையொப்பம் அல்லது கைரேகை, நான் இந்தபடிப்புக்கு சம்மதிப்பதையும், நான் பங்குபெற ஆர்வமாகவும் உள்ளேன் என்பதி விளக்குகிறது.

கையொப்பம் / இடது கை பெருவிரல் ரேகை

நேர்காணல் செய்பவரின் கையெழுத்து சாட்சி

தேதி:

தொட்ர்புக்கு: 8547108668

ANNEXURE- IV

STRUCTURED QUESTIONNAIRE TO ASSESS THE KNOWLEDGE OF MOTHERS IN SAFETY OF UNDERFIVE CHILDREN REGARDING PREVENTION OF ACCIDENTS IN VIEW TO PREPARE INFORMATION BOOKLET

SECTION A

DEMOGRAPHIC DATA

1. Age of the mother

a.20-25years [ ]

b.26-30years [ ]

c.31-35years [ ]

d.36-40years [ ]

2. Educational status of mother

a. Illiterate [ ]

b. Primary school [ ]

c. Secondary school [ ]

d. Graduates [ ]

3. Age of the child

a. Below 1 year [ ]

b.1-2years [ ]

c.3-4years [ ]

d.4-5years [ ]

4.Religion

a.Hindu [ ]

b.Christian [ ]

c.Muslim [ ]

d. Others [ ]

5.Family income

a. 1000-10000Rs [ ]

b. 11000-20000Rs [ ]

c. 21000-30000Rs [ ]

d. Above 30000Rs [ ]

6.Type of family

a.Nuclear [ ]

b.Joint [ ]

c.Extended [ ]

d.Single parent [ ]

7.Number of under five children in the family

8.Type of house

a. Kaccha [ ]

b. Pakka [ ]

c. Semipakka [ ]

d. Tent [ ]

9.Any history of previous accident?

a.Yes [ ]

b. No [ ]

If yes specify----------

10. Have you ever managed a home accident?

a. Yes [ ]

b. No [ ]

If yes specify----------

11. Source of information about prevention of accidents

a. Relatives [ ]

b. Friends [ ]

c. Mass media [ ]

d. Books [ ]

SECTION B

I. GENERAL INFORMATION ABOUT ACCIDENTS

1. What is meant by an accident?

a. Unintentional harm to body causing physical disability [ ]

b. It causes mental disability [ ]

c. It leads to hospitalization [ ]

d. It makes the child uneasy [ ]

2. What are the common causes for accidents?

a. Children unattended and unsupervised [ ]

b. Low socio economic status [ ]

c. Increase in family size [ ]

d. Poor knowledge of infants [ ]

3.In which age group accidents are more common?

a. Newborns [ ]

b. Younger children(1-5years) [ ]

c. Older children(6-12years) [ ]

d. Children above 12years [ ]

4.How to prevent accidents in children?

a.Through proper supervision of the child [ ]

b. Supervision of child and taking preventive measures [ ]

c.Teaching the child regarding safety measures [ ]

d.Caring the child properly [ ]

A.BURNS

1. Why burns are common in children?

a. Because of their age [ ]

b. Curiosity of children to explore things [ ]

c.Lack of knowledge in children [ ]

d. Lack of knowledge of parents [ ]

2.To prevent burns in children how to keep hot cooked foods?

a.Away from the reach of the child [ ]

b.On top of the table [ ]

c.Away from the vicinity of children [ ]

d.Instruct the child not to touch the food [ ]

3.How to prevent burns from hot water when bathing the child?

a.Do not bath the child in hot water [ ]

b.Always check the temperature of bathing water [ ]

c.Keep the water away from the child [ ]

d.Never allow the child to play in bathing water [ ]

4.How should be the electrical appliances and outlets kept when there is a child at home?

a.Do not allow the child to go near the appliances [ ]

b.Keep the appliances out of the childs reach and outlets safeguarded [ ]

c. Distract the child away from these objects [ ]

d.Supervise the child all time [ ]

5.How will you prevent sunburns in children?

a.Do not take the child outside [ ]

b.Keep the child fully covered when outside [ ]

c.Hydrate the child adequately [ ]

d.Do not take the child outside in daylight [ ]

6.How to prevent burns injury in child while cooking?

a.Do not hold the child in hand while cooking [ ]

b.Keep the child away from cooking area [ ]

c.Instruct child not to come near the cooking area [ ]

d.Distract the child with toys [ ]

7.How will you prevent burns from hot fluids?

a.Do not keep hot fluids near to the reach of the child [ ]

b.Always cool the fluid which is given to the child [ ]

c.Do not allow child to take hot fluids by themselves [ ]

d. Do not give hot fluids to children [ ]

8.What is the first aid measure that to be taken in burns injury?

a.Pour water on the child [ ]

b.Apply ice pack on the site of burn [ ]

c.Apply ink on the area of burn [ ]

d.Take child to hospital [ ]

9.How to extinguish fire if a child is caught in fire?

a.Hug the child caught in fire [ ]

b.Roll the child in a blanket [ ]

c.Pour water on the child [ ]

d.Put sand onto the child [ ]

10.What measure will be taken in case of minor burn injury?

a.Dip the area of burn in water [ ]

b.Wrap the area with a clean cloth [ ]

c.Apply ointment [ ]

d.Apply oil on the burn site [ ]

B.POISONING

1.How to prevent drug poisoning in children?

a. Giving correct dose of medication as prescribed by the doctor [ ]

b. Giving medicines according to the mothers wish [ ]

c. Opting only natural treatment remedies for medication [ ]

d. Withholding the medication [ ]

2.How to store poisonous substances at home?

a.Store away from the reach of children [ ]

b.Inside plastic covers [ ]

c.In tight containers [ ]

d. Should be packed properly [ ]

3.How will you prevent poisoning in children when storing food items in containers?

a.Do not store corrosive substances in cool drinks bottles [ ]

b.Store in steel containers [ ]

c.Do not store in plastic container [ ]

d.Cover the poisonous substances [ ]

4. How to prevent poisoning from toys in children?

a. Do not allow child to bite the toys [ ]

b. Give only stuffed toys to the child [ ]

c. Ensure that the toy is child friendly and contains no lead [ ]

d. Give soft toys to the child [ ]

5.How should be a child supervised to prevent poisoning?

a.Never allow the child to take anything to mouth without supervision [ ]

b.Children should be given food only in the presence of the parents [ ]

c.Do not allow the child to eat by itself [ ]

d.Feed the child properly [ ]

6.What the is the general symptom in a child with poisoning?

a.Child will have body pain [ ]

b. Will not have any symptoms [ ]

c.Vomiting will be present [ ]

d.Child will be unconscious [ ]

7.What is the measure that to be taken after the event of poisoning in a child?

a.Wash the mouth and identify the consumed poison [ ]

b.Wait for assistance to shift child to hospital [ ]

c.Advice the child not to repeat it [ ]

d.Give plenty of water to drink [ ]

8.What measure will you take if any poisonous substance gets in contact with the eyes?

a.Keep the eyes closed for few minutes [ ]

b.Apply eye ointment [ ]

c.Wash the eye with plenty of water [ ]

d.Shift the child to hospital [ ]

9.What is the first aid for poisoning in children?

a.Give salt water to drink [ ]

b.Give plain water to drink [ ]

c.Induce vomiting in child [ ]

d.Identify the consumed poison and shift child to hospital [ ]

10.What to be done when carrying a poisoned child to the hospital?

a. Carry the bottle of poison which was consumed [ ]

b.Wash the mouth of the child [ ]

c. Give water to the child [ ]

d.Keep the child conscious [ ]

SCORING INTERPRETATION:

Each question-1 mark

Total marks -24

Inadequate knowledge- (1-8)

Moderately adequate knowledge- (9-16)

Adequate knowledge- (17-24)

ANNEXURE-V

MASTER CODING SHEET

SECTION A

DEMOGRAPHIC DATA

Sample no	Age of mother	Education of mother	Age of child	Religion	Family income	Type of family	No. of underfive children in family	Type of house	History of previous accidents	Ever managed home accident.	Information about prevention of accidents
1	a	c	a	a	a	a	1	c	b	b	a
2	d	c	c	b	b	b	1	b	b	b	c
3	b	c	a	a	b	a	1	b	b	b	c
4	b	c	b	a	b	b	1	c	b	b	b
5	a	d	a	a	b	a	1	b	b	b	a
6	b	d	c	a	c	d	2	b	b	b	d
7	b	d	c	a	c	a	2	b	b	b	a
8	c	c	a	a	b	a	2	c	b	b	a
9	a	d	c	a	b	b	1	b	b	b	a
10	c	c	b	c	c	b	2	b	a	a	a
11	a	c	a	b	b	a	1	c	b	b	b
12	a	c	a	a	b	a	1	c	b	b	a
13	a	c	b	c	b	b	1	b	b	b	a
14	b	d	a	b	c	b	1	b	b	b	a
15	a	c	a	a	a	a	1	b	b	b	a
16	c	d	b	a	c	a	1	b	b	b	c
17	a	c	b	a	a	a	1	c	b	b	a
18	a	c	c	a	b	b	1	c	b	b	a
19	c	d	c	b	b	d	1	b	b	b	a
20	c	c	b	a	a	a	2	c	b	b	a
21	a	b	b	a	a	a	1	c	b	b	b
22	b	d	b	a	b	b	1	b	b	b	c
23	a	c	a	a	a	a	1	c	b	b	a
24	a	c	a	c	c	b	1	b	b	b	a
25	a	d	a	a	b	a	1	b	b	b	a
26	a	c	a	a	b	a	1	c	b	b	c
27	b	d	a	a	b	b	1	c	b	b	d
28	a	c	a	a	b	a	1	b	b	b	a
29	c	d	c	a	b	a	2	b	b	b	c
30	b	c	a	a	b	a	1	b	b	b	d
31	a	d	a	a	d	b	1	b	b	b	c
32	b	d	a	a	b	a	1	b	b	b	a
33	b	d	a	b	a	a	1	b	b	b	a
34	b	d	a	a	c	a	1	b	b	b	a
35	a	c	a	a	b	a	1	b	b	b	a
36	a	d	b	a	b	a	1	b	b	b	b
37	a	d	b	a	b	a	1	b	b	b	b
38	a	b	a	a	a	b	1	c	b	b	a
39	b	c	b	a	a	a	2	b	b	b	a
40	c	c	c	a	b	a	1	b	b	b	a
41	a	c	b	c	b	b	2	b	b	b	a
42	b	c	a	a	b	a	1	b	b	b	a
43	d	d	d	b	b	a	1	b	b	b	c
44	b	c	a	b	a	a	1	b	b	b	b
45	a	c	b	a	a	a	1	c	b	b	a
46	a	c	b	a	b	a	1	b	b	b	c
47	b	d	b	b	c	a	1	b	b	b	a
48	a	c	a	b	a	a	1	b	a	a	a
49	a	c	a	a	a	a	1	b	b	b	a
50	b	d	b	b	c	a	1	b	b	b	a
51	a	c	a	b	a	a	1	b	a	a	a
52	b	d	b	b	b	a	2	b	b	b	a
53	b	c	a	a	a	a	1	b	b	b	a
54	c	d	b	a	a	b	1	b	b	b	a
55	b	d	a	a	c	a	1	b	b	b	c
56	b	d	c	a	b	b	2	b	b	b	a
57	b	c	a	a	b	b	1	b	b	b	c
58	b	c	a	c	b	a	2	c	b	b	a
59	a	c	a	a	b	a	1	b	b	b	a
60	b	c	a	a	b	b	1	b	b	b	a
61	b	c	b	a	b	b	1	b	b	b	a
62	b	b	a	b	b	a	1	b	b	b	a
63	c	c	c	a	b	a	1	c	b	b	a
64	b	c	a	a	b	b	1	c	b	b	a
65	c	c	c	c	b	b	2	c	b	b	a
66	b	c	c	a	b	b	1	c	b	b	b
67	b	c	a	a	b	b	1	c	a	a	a
68	b	c	a	a	b	a	2	c	b	b	a
69	b	b	a	a	b	a	1	b	b	a	b
70	b	d	a	b	b	a	1	b	b	b	a
71	b	c	b	a	b	a	1	b	a	a	b
72	a	c	a	a	b	a	1	b	b	b	a
73	d	c	d	a	b	a	1	b	b	b	a
74	a	c	c	a	b	b	1	c	b	b	a
75	b	c	b	b	c	b	1	c	b	b	c
76	a	c	b	b	b	a	1	c	b	b	a
77	a	c	b	b	b	a	1	b	b	b	a
78	b	d	b	b	c	a	2	b	b	b	a
79	a	c	a	a	a	a	1	b	b	b	a
80	a	c	a	a	b	a	1	b	b	b	b
81	a	c	a	a	b	b	1	b	b	b	a
82	c	d	a	b	b	b	1	b	b	b	c
83	b	c	a	a	a	a	1	b	a	a	a
84	b	c	a	a	a	a	1	b	b	b	a
85	b	c	a	a	b	b	1	b	b	b	a
86	c	c	b	c	c	b	2	b	a	a	a
87	a	c	c	a	b	a	1	b	a	a	a
88	b	c	b	a	a	a	2	b	b	b	a
89	d	d	c	a	c	b	2	b	b	b	c
90	c	c	c	a	b	a	1	c	b	b	a
91	b	c	a	a	b	b	2	b	b	b	a
92	b	c	b	a	b	a	1	c	b	b	a
93	a	c	a	b	b	a	1	c	b	b	b
94	a	c	b	b	a	a	1	b	b	b	a
95	c	c	b	a	a	a	2	b	b	b	c
96	c	c	b	a	b	b	1	b	b	b	a
97	b	c	a	c	b	b	1	b	b	b	b
98	a	b	a	c	a	a	1	c	b	a	a
99	b	b	b	a	a	a	1	b	b	b	b
100	b	c	a	b	a	a	1	b	b	b	b

SECTION-B

GENERAL INFORMATION ABOUT ACCIDENTS				A-BURNS										B-POISONING									
1	2	3	4	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
1	1	1	0	0	1	0	0	0	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1
1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1
0	1	1	0	0	1	1	0	0	0	1	0	0	0	1	1	1	0	1	1	1	1	1	1
1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
1	0	1	0	0	0	1	0	1	0	0	0	0	0	1	1	0	1	0	0	0	1	0	0
1	0	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
1	1	1	0	0	1	1	0	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	0
0	0	0	1	0	0	0	1	1	0	0	0	1	1	1	1	0	0	0	0	0	1	0	0
1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	0	0	0	1	0	0
1	1	1	0	0	1	0	0	1	0	0	1	1	0	1	1	1	0	0	0	0	1	0	1
1	0	1	0	0	1	1	0	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	1
1	1	1	0	0	1	1	0	1	1	1	1	1	1	0	1	1	1	0	1	1